Author Index, Optical Engineering Vol. 20 (1981)

Albertinetti, N. P., 316
Aldrich, R. E., 316
Aleksoff, C. C., 639
Allen, R. H., 765
Allen, Thomas H., 373
Altschuler, Bruce R., 953
Altschuler, Martin D., 953
Ammon, G. J., 394
Anderson, R. C., 846, 861
Anger, C. D., 216
Arakawa, E. T., 753
Asakura, Toshimitsu, 320
Ash, Gary S., 373
Atherton, P. D., 806
Azzam, R. M. A., 001, 058

Babey, S. K., 216
Bademian, Leo, 143
Baier, R. E., 866
Bartolini, Robert A., 382
Bastiaans, Martin J., 594
Baur, T. G., 002
Bayar, Mete, 181
Bednarek, Daniel R., 271, 590
Benjamin, R. J., 201
Ben-Shalom, A., 746
Binns, B. W., 365
Boudreaux, N. A., 399
Boyer, G. R., 044
Brandt, Gerald B., 150
Brenden, Byron B., 907
Briggs, S. J., 651
Browell, E. V., 084
Buholz, N. E., 129, 325
Bulabois, J., 233
Burcher, Ernest E., 772
Burner, A. W., 801

Cabrera, Sergio D., 616
Caldwell, P. J., 753
Callary, P. R., 846, 861,
Carter, A. F., 084
Casleton, Kent H., 493
Casper, J. F., 201
Caulfield, H. J., 665
Chan, William S., 574
Chang, I. C., 712, 805, 824
Chang, T. Y., 220
Chase, R. C., 486, 803
Cindrich, I, 639
Clark, Walter M., 854
Coffeen, David L., 001
Cogger, L. L., 216
Cole, Robert E., 579
Corsover, Stephen, 351
Courjon, D., 233
Craubner, Siegfried, 608
Crosley, David R., 511
Crosta, Giovanni, 562

Delgado, Raymond F., 701
DePalma, V. A., 866
Devich, Robert N., 912
Devir, A. D., 746
Deyhimy, Ira, 947
Dickey, F. M., 765
Dobbins, Lawrence, 351
Dudgeon, D. E., 281
Durie, D. S. L., 625

Eckbreth, Alan C., 494
Eden, Dayton D., 377
Eden, Richard C., 947
Efkeman, Albert, 208
Eimerl, D., 777
Ekstrom, P. A., 019
Elser, W., 970
Engel, Jan M., 932
Everson, J. H., 316

Fanelli, Anthony R., 358
Feldman, R. B., 267
Fiebig, Martin, 599
Fienup, J. R., 639
Filip, A. E., 281
Franke, J. M., 801
Freniere, E. R., 253
Friedman, Irwin, 161
Friedman, M. Gerald, 893
Friedman, Peter S., 887
Fuschetto, Anthony, 310
Fusek, Richard L., 236, 241
Futterman, Walter I., 103
Fymat, Alain L., 025

Gasser, Gary C., 893
Gautier, T. N., III, 285
Gaylord, T. K., 404
Gerassimenko, M., 486, 803
Ghodgaonkar, A. M., 852
Gilday, D. L, 736
Gillard, C. W., 129
Ginsberg, Robert H., 175
Glaser, I., 568
Godfrey, Thomas E., 854
Goldhar, J., 777
Gole, James L., 546
Gottlieb, Milton, 712
Gunning, W. J., 837
Green, Kenneth, 166
Guilfoyle, P. S., 556

Hackwell, J. A., 019
Hall, Ernest L., 460
Hall, Robert J., 494
Hardesty, Charles A., 772
Hardesty, Donald R., 529
Harding, Kevin G., 115
Hariharan, P., 749
Harned, Noreen, 195
Harned, Robert, 195
Harney, Robert C., 976
Harris, Jack K., 050
Harris, James S., 115, 464
Harvey, James E., 881
Hastie, John W., 522
Hatch, Marcus, 166
Hawman, Eric G., 719
Hecht, D. L., 556
Henderson, D. M., 830
Herrmann, Hartmut, 759
Herzog, Donald G., 335
Hicks, T. R., 806
Hoffmann, W. F., 285
Holve, Donald J., 529
Honda, Toshio, 246
Horner, J. L., 666
Houston, Joseph B., Jr., 712
Huber, Edward D., 941
Huff, Lloyd, 236, 241
Hunt, B. R., 616, 677
Hurwitz, C. E., 658
Hwang, J. J., 460
Hyzer, William G., 691

Iida, Hitoshi, 688
Imbert, Christian, 437
Indebetouw, G., 412
Ishimaru, Akira, 063
Iwai, Toshiaki, 320

Jacobs, R. R., 777
Jafarpour, Mohammad R., 095
Jakubowski, James J., 328
Jamberdino, Albert A., 329, 387
Jamieson, Thomas H., 156
Jenkins, Donald, 208
Jobson, Daniel J., 772
Johnson, C. T., 267
Joy, M. L. G., 736

Katzberg, Stephen J., 772
Kemmer, Douglas B., 103
Kenville, R. F., 330
King, R. J., 039
Kiremidjian, Garo K., 899
Klein, Philipp H., 790
Köpp, Friedrich, 759
Kurita, S., 922
Kuttner, P., 291

Lamouroux, B. F., 044
Lawley, K. L., 111
Leipertz, Alfred, 599
Leonard, Donald A., 091
Levi, Leo, 098
Lim Jae S., 281, 472
Lipson, S. G., 746
Lotspeich, J. F., 830
Low, F. J., 285

Mace, Phillip N., 935
Mack, E. J., 866
Magome, Nobutaka, 246
Malewski, Ryszard, 054
Malin, Mark, 756
Mann, Allen, 412
Margolin, Jerome, 795
Marshall, T. G., 417
McHugh, Paul G., 795
McLellan, E. J., 469
McRoberts, M., 267
Melugin, Ramsey, 195
Merchant, John, 424
Mersch, Steven H., 115, 464
Miller, Jacob, 166
Mitchell, Richard J., 446
Mooradian, G. C., 071
Morris, H. B., 111
Morrow, Howard E., 756
Mullen, Donald L., 464
Murray, J. R., 777
Murty, M. V. R. K., 605

Nakadate, Suezou, 246
Nawab, Hamid, 472
Nevière, Michel, 629
Novick, Robert, 031

Olsen, Gregory H., 440
Oppenheim, A. V., 281
Oppenheim, U. P., 746
Oreb, B. F., 749
Orfanidis, S. J., 417
Otten, T. H., 399
Owen, Robert B., 634

Partlow, W. D., 267
Pasko, J. G., 970
Pendley, G. J., 697
Pepper, Ross L., 579
Perez-Mendez, Victor, 586
Petrasso, R., 486, 803
Pettijohn, Richard R., 681
Pierson, Paul B., 344
Pilié, R. J., 866
Pohlig, S. C., 281
Poteet, W., 285
Prade, B. S., 044
Primak, William, 481

Race, R., 253
Raine, K. W., 039
Ralston, L. M., 365
Ramani, K., 852
Rapoport, W. R., 777
Rauch, Herbert E., 103
Reay, N. K., 806
Reedy, Robert P., 927
Reinisch, Raymond, 629
Reisinger, A. R., 111
Renaud, Louis, 736

Ridder, D. W., 129
Rieke, G. H., 285
Ring, J., 806
Robinson, Waldo R., 785
Rogers, C. W., 866
Roosen, Gérald, 437
Rosenberg, William J., 815
Rudin, Stephen, 271, 590

Sadjadi, F. A., 460
Saleh, Bahaa E. A., 781
Salomon, Phil M., 135
Sayegh, Soheil I., 781
Schamberger, H., 291
Schau, H. C., 275, 664
Schenck, Peter K., 522
Schlitt, L., 777
Schnurr, Alvin D., 412
Schofield, K., 501
Schreibman, Martin, 190
Scott, Marion L., 881
Seguin, F. H., 486, 803
Shapiro, J. H., 076
Silver, Joel A., 540
Silverglate, Peter R., 621
Sledge, R. L., 765
Smith, David C., 579, 962
Smithline, L. M., 712
Soares, O. D. D., 740
Sprague, Robert A., 873
Steinberg, M., 501
Steinberg, Richard A., 726
Steinmetz, D. L., 556
Stephens, R. R., 830
Stewart, Gerald W., 493
Stokes, G. M., 019
Stokes, R. A., 019
Stotlar, S. C., 469
Strand, David, 379
Sutter, L. V., 769
Swingle, J. C., 777

Taboada, J., 953
Tai, A., 639
Takai, Nobukatsu, 320
Tam, Kwok-Cheong, 586
Tandon, Jagdish C., 123
Tichenor, Daniel, 529
Title, Alan M., 815
Toler, O. E., 253
Tracy, John, 712, 970
Trsar, W. J., 201
Tsujiuchi, Jumpei, 246
Turner, William, 873

Vinet, J. Y., 044

Walraven, R., 014
Wang, James C. F., 529
Wang, Keith, 256
Warde, Cardinal, 062, 076
Watkins, J. W., 399
Weaver, J. E., 404
Weaver, S. E., 365
Weber, Robert, 212
Weinhaus, Frederick M., 912
Werner, Christian, 759
White, J. R., 765
Wilkerson, T. D., 084
Williams, M. W., 753
Woehl, Walter E., 450
Wolga, G. J., 712
Wong, Robert Y., 095
Wu, Paul S., 123

Yaji, T., 922
Yao, Shi-Kay, 712
Yoder, Paul R., Jr., 155
Young, Philip, 190
Yu, F. T. S., 666

Zimmerman, Jerrold, 187
Zombeck, Martin V., 297

As_2S_3 film waveguide with optical grating devices, amorphous, 922
Absolute distance interferometry, 129
Absolute measurement of laser beam energy using
its radiation pressure force, 437
Absorption coefficients in crystalline materials, techniques for measuring, 790
Absorption of infrared radiation by atmospheric water vapor in the region 4.3 to 5.5 microns: preliminary measurements, 746
Absorption lidar system for water vapor investigations, airborne diffferential, 084
Accuracy guidance applications, charge-coupled device (CCD) trackers for high-, 135
Acoustic wave (SAW)?, radar signal processing: digital, charge-coupled device (CCD), or surface, 795
Acousto-optic correlator for chirp spectrum analysis, joint transform time-integrating, 556
Acousto-optic laser recording, 143
Acousto-optic tunable filters, 824
Acousto-optics in instrumentation: an overview for the 1980s, the potential for, 712
Active/passive infrared imaging systems, dual, 976
Actuator deformable mirror, discrete, 316
Actuator deformable water-cooled mirror, three-, 310
Advanced X-ray Astrophysics Facility (AXAF), 297
Aerial reconnaissance lenses, thermo-optical analysis of two long-focal-length, 161
Aerosol analysis, miniature multiple-pulse Q-switched ruby laser holocamera for, 907
Aerosols: spectroscopic data from a rapid field technique, source assessment of atmospheric, 866
Air breakdown and plasma shielding, laser radiation-induced, 962
Airborne differential absorption lidar system for water vapor investigations, 084
Airborne laser designator systems, boresighting of, 854
Aircraft multispectral scanner (TBAMS) system, radiometric performance of the test-bed, 772
Aircraft windscreen optical distortion, techniques for evaluation of, 115
Alignment and angle measurement, polarimetry applied, 039
Alignment and evaluation of the cryogenic corrected Infrared Astronomical Satellite (IRAS) telescope, 195
Alignment and performance testing of laser ranger designators and thermal imaging systems, common collimator approach to, 765
All reflective zoom optical system for the infrared, an, 450
All-sky imaging photometer, an, 216
Alternative to ellipsometry for characterizing transparent planar thin films, 111
Amorphous As_2S_3 film waveguide with optical grating devices, 922
Amorphous materials, optical recording with, 379
Analysis, optical techniques for combustion and (Guest Ed.), 493
Analysis of a satellite interferometer system (SIS), 621
Angle measurement, polarimetry applied to alignment and, 039
Anisotropy, perpendicular-incidence null ellipsometry of surfaces with arbitrary, 058
Anomalies of gratings, increase in Raman excitation of surface polaritons with surface roughness explained in terms of Wood, 629
Anti-Stokes Raman spectroscopy (CARS), combustion diagnosis by coherent, 494
(ANVIS), development of an aviator's night vision imaging system, 208
Apertures, scatter reduction in conventional radiographic tomography using rotating, 590
Application of computerized tomography techniques to tokamak diagnostics, 486
Architecture: an overview, focal plane, 574
Archival mass memory system using optical diskettes, large, 399
Archival optical disc data storage, 394
Area image sensor, high resolution multispectral linear focal plane using an, 873
Aspects of sparsely studied gas phase chemistry of import to the energy technologies, 546
Astronomical polarimeter, a new 10 micron, 019
Astronomical Satellite (IRAS) primary mirror mounts, design of Infrared, 190
Astronomical Satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected Infrared, 195
Astrophysics Facility, (AXAF), Advanced X-ray, 297
Atmosphere, theory of optical propagation in the, 063
Atmospheric aerosols: spectroscopic data from a rapid field technique, source assessment of, 866
Atmospheric optical communication (Guest Ed.), 062
Atmospheric water vapor in the region 4.3 to 5.5 microns: preliminary measurements, absorption of infrared radiation by, 746
Atomic and molecular laser fluorescence in the study of detailed combustion processes, quantitative, 501
Aviator's night vision imaging system, (ANVIS), development of an, 208
(AXAF), Advanced X-ray Astrophysics Facility, 297

Background suppression and tracking with a staring mosaic sensor, 103
Ballistic photography, revisited, synchro-, 697
Barrel optomechanical design principles, lens, 181
Beam sampler—versatile high-energy laser (HEL) diagnostic tool, hole grating, 881
Beamsplitter, noncoherent microholography using a holographic optical element as a, 233
"Best gamma" for displays, photometric technique for deriving a, 651
Bi- and tri-dimensional polarimetry, piezo-optical effect in, 044
Binary data in electro-optic crystals, evaluation experiments on holographic storage of, 404
Binocular, production engineering and implementation of a modular military, 201
Bipolar and complex imagery in noncoherent optics image processing systems: comparison of approaches, representing, 568
Birefringent filters, tunable, 815
Blind deconvolution, new technique for, 281
Bootstrap sensitometry in radiography, modified, 271
Boresighting of airborne laser designator systems, 854
Boundary detection techniques for the analysis of gated cardiac scintigrams, digital, 719

CO_2 high energy laser μsec pulses with a pyroelectric vidicon camera, imaging, 464
CO_2 laser, selected five-color operation of a, 325
CO_2 waveguide lasers, gain-switched pulsed rf, 769
Calculator, interferogram evaluation program for the HP-9825A, 253
Camera development in the Union of Soviet Socialist Republics (USSR) and People's Republic of China (PRC), trends in high-speed, 691
Camera, imaging CO_2 high energy laser μsec pulses with a pyroelectric vidicon, 464
Camera lens design, wideband comet, 941
Camera optical performance, effects of internal-compartment turbulence on, 893
Cardiac scintigrams, digital boundary detection techniques for the analysis of gated, 719
Carrier, density slicing with a real-time tunable spatial, 412
(CARS), combustion diagnosis by coherent anti-Stokes Raman spectroscopy, 494
(CCD), or surface acoustic wave (SAW)? radar signal processing, digital, charge-coupled device, 795
Characterization for cylindrical mirrors and lenses, optical figure, 412
Characterizing transparent planar thin films, alternative to ellipsometry for, 111
Charge-coupled device (CCD), or surface acoustic wave (SAW)?, radar signal processing: digital, 795
Charge-coupled device (CCD) trackers for high-accuracy guidance applications, 135
Charge-coupled devices for high speed signal processing, GaAs integrated circuits and, 947
Chemical laser testing, optical bench for, 625
Chemical treatment techniques, photographic image enhancement using, 681
Chemistry of import to the energy technologies, aspects of sparsely studied gas phase, 546
Chirp spectrum analysis, joint transform time-integrating acousto-optic correlator for, 556
Choice of slit width for a Czerny-Turner grating monochromator, on the, 852
Circuits and charge-coupled devices for high speed signal processing, GaAs integrated, 947
Clutter in optical seekers, ground, 846
Coefficients in crystalline materials, techniques for measuring absorption, 790
Coherent anti-Stokes Raman spectroscopy (CARS), combustion diagnosis by, 494
Collimator approach to alignment and performance testing of laser ranger designators and thermal imaging systems, common, 765
Collisional effects on laser-induced fluorescence flame measurements, 511
Color holography, improved integrating exposure-control system for, 749
Color video signal, two-dimensional transforms of the sampled National Television Systems Committee (NTSC), 417
Combustion and analysis, optical techniques for (Guest Ed.), 493
Combustion diagnosis by coherent anti-Stokes Raman spectroscopy (CARS), 494
Combustion processes, quantitative atomic and molecular laser fluorescence in the study of detailed, 501
Combustion processes using optical detection techniques, determination of kinetic parameters of, 540

Combustion systems, optogalvanic spectroscopy—application to, 522
Comet camera lens design, wideband, 941
Common collimator approach to alignment and performance testing of laser ranger designators and thermal imaging systems, 765
Communication, atmospheric optical (Guest Ed.), 062
Communication through low-visibility weather, optical, 076
Communications in the marine environment, surface and subsurface optical, 071
Complex imagery in noncoherent optics image processing systems: comparison of approaches, representing bipolar and, 568
Complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals, a sampling theorem for the, 594
Computer-controlled photometry and large-screen display resolution, 785
Computer digital image analysis, small-, 932
Computer modeling of optical trackers, 861
Computerized tomography techniques to tokamak diagnostics, application of, 486
Computers, concepts for numerical optical, 639
Concentration detection, giant pulse laser Raman probe for low gas, 599
Concepts for numerical optical computers, 639
Contours with a servo-scanning interferometer, determination of plate, 481
Conventional radiographic tomography using rotating apertures, scatter reduction in, 590
Cooled infrared telescope for Spacelab 2, small helium-, 285
Cooled mirror, three-actuator deformable water-, 310
Corrected Infrared Astronomical Satellite (IRAS) telescope, alignment and evaluation of the cryogenic, 195
Corrections of original masks, reduction of errors of microphotographic reproductions by optimal, 781
Correlator for chirp spectrum analysis, joint transform time-integrating acousto-optic, 556
Coupler for fiber optics, holographic, 740
Cryogenic corrected Infrared Astronomical Satellite (IRAS) telescope, alignment and evaluation of the, 195
Crystal infrared modulation, liquid, 970
Crystalline materials, techniques for measuring absorption coefficients in, 790
Crystals, evaluation experiments on holographic storage of binary data in electro-optic, 404
Current transformers with optical signal transmission, high-voltage, 054
Cylindrical holographic stereograms, optical techniques for increasing image width in, 241
Cylindrical holographic stereograms, use of a holographic lens for producing, 236
Cylindrical mirrors and lenses, optical figure characterization for, 412
Czerny-Turner grating monochromator, on the choice of slit width for a, 852

Data compression system, optical computations for a spatially adaptive image, 616
Data in electro-optic crystals, evaluation experiments on holographic storage of binary, 404
Data handling, laser recording and, 329
Data recording, optical properties of tellurium films used for, 373
Data recording, transparent electrophotographic film evaluation for high performance, 365
Data storage, archival optical disc, 394
Deconvolution, new technique for blind, 281
Deflector-magnifier, line-of-sight, 605
Deformable mirror, discrete actuator, 316
Deformable water-cooled mirror, three-actuator, 310
Deformations, hybrid holographic interferometer for measuring three-dimensional, 246
Degraded visibility conditions, stereo TV improves operator performance under, 579
Density optical recording, media for high-, 382
Density slicing with a real-time tunable spatial carrier, 421
Description of a dry film tactical laser beam recorder, 335
Design considerations for a flexible high-resolution film recording system, 344
Design criteria and recent developments of optical single particle counters for fossil fuel systems, 529
Design of Infrared Astronomical Satellite (IRAS) primary mirror mounts, 190
Design, optomechanical systems (Guest Ed.), 155
Design principles, lens barrel optomechanical, 181
Designators and thermal imaging systems, common collimator approach to alignment and performance testing of laser ranger, 765
Detection, giant pulse laser Raman probe for low gas concentration, 599
Detection techniques for the analysis of gated cardiac scintigrams, digital boundary, 719
Detection techniques, determination of kinetic parameters of combustion processes using optical, 540
Detectors, developments in high-speed pyroelectric, 469
Detectors for the 1.1 to 1.6 μm wavelength region, 658
Determination of kinetic parameters of combustion processes using optical detection techniques, 540
Determination of plate contours with a servo-scanning interferometer, 481
Designator systems, boresighting of airborne laser, 854
Development of an aviator's night vision imaging system (ANVIS), 208
Developments in high-speed pyroelectric detectors, 469
DFVLR Minilidar, remote measurements of plume dispersion over sea surface using the, 759
Diagnosis by coherent anti-Stokes Raman spectroscopy (CARS), combustion, 494
Diagnostic tool, hole grating beam sampler—versatile high-energy laser (HEL), 881
Diagnostics, application of computerized tomography techniques to tokamak, 486
Diagnostics, microcomputerized facility for on-line spectroscopic plasma, 267
Digital image analysis, small-computer, 932
Digital simulation of reticle systems, 608
Different views of a common object scene, exact area registration of, 424
Differential absorption lidar system for water vapor investigations, airborne, 084
Digital boundary detection techniques for the analysis of gated cardiac scintigrams, 719
Digital, charge-coupled device (CCD), or surface acoustic wave (SAW)?, radar signal processing:, 795
Digital image processing, 677
Diodes, InGaAsP laser, 440
Disc data storage, archival optical, 394
Discrete actuator deformable mirror, 316
Diskettes, large archival mass memory system using optical, 399
Dispersion over sea surface using the DFVLR Minilidar, remote measurements of plume, 759
Display resolution, computer-controlled photometry and large-screen, 785
Displays, photometric technique for deriving a "best gamma" for, 651
Distance interferometry, absolute, 129
Distortion, techniques for evaluation of aircraft windscreen optical, 115
Dry film tactical laser beam recorder, description of a, 335
Dual active/passive infrared imaging systems, 976
Dynamic transduction of forces on a surface by empirical photoelasticity, 050

Ebsicon for low light level satellite surveillance, large-format, 212
Editorials, Guest
Atmospheric optical communication, 062
Electronically tunable optical spectral filters, 805
Laser recording and data handling, 329
Optical polarimetry, 001
Optical techniques for combustion and analysis, 493
Optomechanical systems design, 155
Photo-Optical Instrumentation Engineering, 665
Effects of internal-compartment turbulence on camera optical performance, 893
Electronically tunable optical spectral filters (Guest Ed.), 805
Electro-optic crystals, evaluation experiments on holographic storage of binary data in, 404
Electro-optic system for rapid three-dimensional (3-D) topographic mapping of surfaces, laser, 953
Electro-optic tunable filter, 830
Electro-optically tuned spectral filters: a review, 837
Electrophotographic film evaluation for high performance data recording, transparent, 365
Elements, optical system with fiber optical, 095
Elements, wavelength scaling holographic, 756
Ellipsometry for characterizing transparent planar thin films, alternative to, 111
Ellipsometry of surfaces with arbitrary anisotropy, perpendicular-incidence null, 058
Emission tomography: quantum noise calculations, Fourier multiaperture, 736
Energy laser μsec pulses with a pyroelectric vidicon camera, imaging CO_2 high, 464
Energy technologies, aspects of sparsely studied gas phase chemistry of import to the, 546
Energy using its radiation pressure force, absolute measurement of laser beam, 437
Engineering and implementation of a modular military binocular, production, 201
Engineering, Photo-Optical Instrumentation (Guest Ed.), 665
Enhancement using chemical treatment techniques, photographic image, 681
Environment, optical measurements and tests performed in a low-gravity, 634
Environment, surface and subsurface optical communications in the marine, 071
Errata: Application of computerized tomography techniques to tokamak diagnostics, 803
Errata: Kolmogorov-Smirnov test in image processing, 664
Errata: Methodology for quantifying flare in a microdensitometer, 328
Errors of microphotographic reproductions by optimal corrections of original masks, reduction of, 781
Evaluation experiments on holographic storage of binary data in electro-optic crystals, 404
Exact area registration of different views of a common object scene, 424

Excimer laser technology, 935
Excitation of surface polaritons with surface roughness explained in terms of Wood anomalies of gratings, increase in Raman, 629
Expansion of a signal in Gaussian elementary signals, sampling theorem for complex spectrogram, and Gabor's, 594
Experiments on holographic storage of binary data in electro-optic crystals, evaluation, 404
Exposure-control system for color holography, improved integrating, 749
Extreme ultraviolet, transmission gratings for the, 753

Fabry-Perot filters, tunable, 806
Fast self-induced refractive index changes in optical media: a survey, 220
Fiber optical elements, optical system with, 095
Fiber optics, holographic coupler for, 740
Fibers by wavelength multiplexing, two-dimensional image transmission through optical, 927
Field technique, source assessment of atmospheric aerosols: spectroscopic data from a rapid, 866
Fifteen years of laser recording-where we've been and where we're going, 330
Figure characterization for cylindrical mirrors and lenses, optical, 412
Film evaluation for high performance data recording, transparent electrophotographic, 365
Film recording system, design considerations for a flexible high-resolution, 344
Film tactical laser beam recorder, description of a dry, 335
Film waveguide with optical grating devices, amorphous As_2S_3, 922
Films, alternative to ellipsometry for characterizing transparent planar thin, 111
Films used for data recording, optical properties of tellurium, 373
Filter, electro-optic tunable, 830
Filters, acousto-optic tunable, 824
Filters, electronically tunable optical spectral (Guest Ed.), 805
Filters: a review, electro-optically tuned spectral, 837
Filters, tunable birefringent, 815
Filters, tunable Fabry-Perot, 806
Five-color operation of a CO_2 laser, selected, 325
5.5 microns: preliminary measurements, absorption of infrared radiation by atmospheric water vapor in the region 4.3 to, 746
Flame measurements, collisional effects on laser-induced fluorescence, 511
Fluctuation, laser speckle velocimeter using a zero-crossing technique for spatially integrated intensity, 320
Fluorescence flame measurements, collisional effects on laser-induced, 511
Fluorescence in the study of detailed combustion processes, quantitative atomic and molecular laser, 501
Focal-length aerial reconnaissance lenses, thermo-optical analysis of two long-, 161
Focal plane architecture: an overview, 574
Focal plane using an area image sensor, high resolution multispectral linear, 873
Force, absolute measurement of laser beam energy using its radiation pressure, 437
Forces on a surface by empirical photoelasticity, dynamic transduction of, 050
Fossil fuel systems, design criteria and recent developments of optical single particle counters for, 529
4.3 to 5.5 microns: preliminary measurements, absorption of infrared radiation by atmospheric water vapor in the region, 746
Fourier multiaperture emission tomography: quantum noise calculations, 736
Fourier transform iterations and Radon transform iterations, limited-angle three-dimensional reconstructions using, 586
Fuel systems, design criteria and recent developments of optical single particle counters for fossil, 529
Fusion, intensification of rare-gas halide lasers with application to laser, 777

GaAs integrated circuits and charge-coupled devices for high speed signal processing, 947
Gabor's expansion of a signal in Gaussian elementary signals, a sampling theorem for the complex spectrogram, and, 594
Gain-switched pulsed rf CO_2 waveguide lasers, 769
Gamma" for displays, photometric technique for deriving a "best, 651
Gas concentration detection, giant pulse laser Raman probe for low, 599
Gas halide lasers with application to laser fusion, intensification of rare-, 777
Gas phase chemistry of import to the energy technologies, aspects of sparsely studied, 546
Gated cardiac scintigrams, digital boundary detection techniques for the analysis of, 719
Gaussian elementary signals, a sampling theorem for the complex spectrogram, and Gabor's expansion of a signal in, 594
Giant pulse laser Raman probe for low gas concentration detection, 599
Glass and niobium oxide waveguides, in-plane scattering in, 150
Grating beam sampler—versatile high-energy laser (HEL) diagnostic tool, hole, 881
Grating devices, amorphous As_2S_3 film waveguide with optical, 922
Grating monochromator, on the choice of slit width for a Czerny-Turner, 852
Gratings for the extreme ultraviolet, transmission, 753
Gratings, increase in Raman excitation of surface polaritons with surface roughness explained in terms of Wood anomalies of, 629
Gravity environment, optical measurements and tests performed in a low-, 634
Grids, incoherent optical quality control of radiographic, 562
Ground clutter in optical seekers, 846
Guidance applications, charge-coupled device (CCD) trackers for high-accuracy, 135
Guidelines for three-dimensional image matching, pattern recognition, 460

Halide lasers with application to laser fusion, intensification of rare-gas, 777
(HEL) diagnostic tool, hole grating beam sampler—versatile high-energy laser, 881
Helium-cooled infrared telescope for Spacelab 2, small, 285
High-accuracy guidance applications, charge-coupled device (CCD) trackers for, 135
High-capacity high-speed recording, 387
High-density optical recording, media for, 382
High-energy laser (HEL) diagnostic tool, hole grating beam sampler—versatile, 881
High energy laser μsec pulses with a pyroelectric vidicon camera, imaging CO_2, 464
High performance data recording, transparent electrophotographic film evaluation for, 365
High performance image processing and laser beam recording system, 358
High-resolution film recording system, design considerations for a flexible, 344
High-resolution in-line rapid wet-processed laser recorder, a, 351
High-resolution interferometric spectrophotopolarimetry, 025
High resolution multispectral linear focal plane using an area image sensor, 873
High-speed camera development in the Union of Soviet Socialist Republics (USSR) and People's Republic of China (PRC), trends in, 691
High-speed pyroelectric detectors, developments in, 469
High-speed recording, high-capacity, 387
High speed signal processing, GaAs integrated circuits and charge-coupled devices for, 947
High-voltage current transformers with optical signal transmission, 054
Hole grating beam sampler—versatile high-energy laser (HEL) diagnostic tool, 881
Holocamera for aerosol analysis, miniature multiple-pulse Q-switched ruby laser, 907
Holographic coupler for fiber optics, 740
Holographic elements, wavelength scaling, 756
Holographic interferometer for measuring three-dimensional deformations, hybrid, 246
Holographic lens for producing cylindrical holographic stereograms, use of a, 236
Holographic optical element as a beamsplitter, noncoherent microholography using a, 233
Holographic stereograms, optical techniques for increasing image width in cylindrical, 241
Holographic stereograms, use of a holographic lens for producing cylindrical, 236
Holographic storage of binary data in electro-optic crystals, evaluation experiments on, 404
Holography, improved integrating exposure-control system for color, 749
Homogeneity of infrared materials, measuring the, 291
HP-9825A calculator, interferogram evaluation program for the, 253
Hybrid holographic interferometer for measuring three-dimensional deformations, 246

InGaAsP laser diodes, 440
Image analysis, small-computer digital, 932
Image data compression system, optical computations for a spatially adaptive, 616
Image enhancement using chemical treatment techniques, photographic, 681
Image-to-map registration, radar, 899
Image matching, pattern recognition guidelines for three-dimensional, 460
Image perspective transformations—urban scenes, 912
Image processing, digital, 677
Image processing, Kolmogorov-Smirnov test in, 275
Image processing and laser beam recording system, high performance, 358
Image processing systems: comparison of approaches, representing bipolar and complex imagery in noncoherent optics, 568
Image sensor, high resolution multispectral linear focal plane using an area, 873
Image transmission through optical fibers by wavelength multiplexing, two-dimensional, 927
Image width in cylindrical holographic stereograms, optical techniques for increasing, 241
Imagery in noncoherent optics image processing systems: comparison of approaches, representing bipolar and complex, 568
Imagery, polarization, 014
Imagery, surface-shadow generation for the preparation of synthetic, 446

Images, optical processing of photographic, 666
Imaging CO_2 high energy laser μsec pulses with a pyroelectric vidicon camera, 464
Imaging photometer, an all-sky, 216
Imaging system (ANVIS), development of an aviator's night vision, 208
Imaging systems, common collimator approach to alignment and performance testing of laser ranger designators and thermal, 765
Imaging systems, dual active/passive infrared, 976
Improved integrating exposure-control system for color holography, 749
Incidence null ellipsometry of surfaces with arbitrary anisotropy, perpendicular-, 058
Incoherent optical quality control of radiographic grids, 562
Increase in Raman excitation of surface polaritons with surface roughness explained in terms of Wood anomalies of gratings, 629
Infrared, an all-reflective zoom optical system for the, 450
Infrared Astronomical Satellite (IRAS) primary mirror mounts, design of, 190
Infrared Astronomical Satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected, 195
Infrared imaging systems, dual active/passive, 976
Infrared materials, measuring the homogeneity of, 291
Infrared modulation, liquid crystal, 970
Infrared radiation by atmospheric water vapor in the region 4.3 to 5.5 microns: preliminary measurements, absorption of, 746
Infrared surveillance, quantum-noise-limited signal processors for, 726
Infrared telescope for Spacelab 2, small helium-cooled, 285
In-plane scattering in glass and niobium oxide waveguides, 150
Instrumentation Engineering, Photo-Optical (Guest Ed.), 665
Instrumentation: an overview for the 1980s, the potential for acousto-optics in, 712
Instrumentation: an overview, photo-optical range, 701
Instrumentation video systems, 688
Integrated circuits and charge-coupled devices for high speed signal processing, GaAs, 947
Integrated intensity fluctuation, laser speckle velocimeter using a zero-crossing technique for spatially, 320
Integrated thermal/structural/optical numerical methods, predicting performance of optical systems undergoing thermal/mechanical loadings using, 166
Integrating exposure-control system for color holography, improved, 749
Intensification of rare-gas halide lasers with application to laser fusion, 777
Intensity fluctuation, laser speckle velocimeter using a zero-crossing technique for spatially integrated, 320
Interferogram evaluation program for the HP-9825A calculator, 253
Interferometer, determination of plate contours with a servo-scanning, 481
Interferometer for measuring three-dimensional deformations, hybrid holographic, 246
Interferometer system (SIS), analysis of a satellite, 612
Interferometric spectrophotopolarimetry, high-resolution, 025
Interferometry, absolute distance, 129
Investigations, airborne differential absorption lidar system for water vapor, 084
(IRAS) primary mirror mounts, design of Infrared Astronomical Satellite, 190
(IRAS) telescope, alignment and evaluation of the cryogenic corrected Infrared Astronomical Satellite, 195
Iterations, limited-angle three-dimensional reconstructions using Fourier transform iterations and Radon transform, 586
Iterations and Radon transform iterations, limited-angle three-dimensional reconstructions using Fourier transform, 586

Joint transform time-integrating acousto-optic correlator for chirp spectrum analysis, 556

Kinetic parameters of combustion processes using optical detection techniques, determination of, 540
Kolmogorov-Smirnov test in image processing, 275

Large archival mass memory system using optical diskettes, 399
Large-format ebsicon for low light level satellite surveillance, 212
Large-screen display resolution, computer-controlled photometry and, 785
Laser beam energy using its radiation pressure force, absolute measurement of, 437
Laser beam recorder, description of a dry film tactical, 335
Laser beam recording system, high performance image processing and, 358
Laser designator systems, boresighting of airborne, 854
Laser diodes, InGaAsP, 440
Laser electro-optic system for rapid three-dimensional (3-D) topographic mapping of surfaces, 953
Laser fluorescence in the study of detailed combustion processes, quantitative atomic and molecular, 501
Laser fusion, intensification of rare-gas halide lasers with application to, 777
Laser holocamera for aerosol analysis, miniature multiple-pulse Q-switched ruby, 907
Laser-induced fluorescence flame measurements, collisional effects on, 511
Laser μsec pulses with a pyroelectric vidicon camera, imaging CO_2 high energy, 464
Laser radiation-induced air breakdown and plasma shielding, 962
Laser Raman probe for low gas concentration detection, giant pulse, 599
Laser ranger designators and thermal imaging systems, common collimator approach to alignment and performance testing of, 765
Laser recorder, a high-resolution in-line rapid wet-processed, 351
Laser recording, acousto-optic, 143
Laser recording and data handling (Guest Ed.), 329
Laser recording—where we've been and where we're going, fifteen years of, 330
Laser scanner for supermarkets, omnidirectional, 123
Laser, selected five-color operation of a CO_2, 325
Laser speckle velocimeter using a zero-crossing technique for spatially integrated intensity fluctuation, 320
Laser technology, excimer, 935
Laser testing, optical bench for chemical, 625
Lasers with application to laser fusion, intensification of rare-gas halide, 777
Lasers, gain-switched pulsed rf CO_2 waveguide, 769
Lens barrel optomechanical design principles, 181
Lens design, wideband comet camera, 941
Lens for producing cylindrical holographic stereograms, use of a holographic, 236
Lenses, optical figure characterization for cylindrical mirror and, 412
Lenses, thermo-optical analysis of two long-focal-length aerial reconnaissance, 161
Lidar system for water vapor investigations, airborne differential absorption, 084
Light level satellite surveillance, large-format ebsicon for low, 212
Limited-angle three-dimensional reconstructions using Fourier transform iterations and Radon transform iterations, 586
Line-of-sight deflector-magnifier, 605
Liquid crystal infrared modulation, 970
Loadings using integrated thermal/structural/optical numerical methods, predicting performance of optical systems undergoing thermal/mechanical, 166
Long-focal-length aerial reconnaissance lenses, thermo-optical analysis of two, 161
Low gas concentration detection, giant pulse laser Raman probe for, 599
Low-gravity environment, optical measurements and tests performed in a, 634
Low light level satellite surveillance, large-format ebsicon for, 212
Low-visibility weather, optical communication through, 076
Luminescent solar concentrators, 887

Magnifier, line-of-sight deflector-, 605
Map registration, radar image-to-, 899
Mapping of surfaces, laser electro-optic system for rapid three-dimensional (3-D) topographic, 953
Marine environment, surface and subsurface optical communications in the, 071
Masks, reduction of errors of microphotographic reproductions by optimal corrections of original, 781
Mass memory system using optical diskettes, large archival, 399
Materials, measuring the homogeneity of infrared, 291
Materials, techniques for measuring absorption coefficients in crystalline, 790
Measurement of laser beam energy using its radiation pressure force, absolute, 437
Measurement, polarimetry applied to alignment and angle, 039
Measurement techniques, remote Raman, 091
Measurements, absorption of infrared radiation by atmospheric water vapor in the region 4.3 to 5.5 microns: preliminary, 746
Measurements, collisional effects on laser-induced fluorescence flame, 511
Measurements of plume dispersion over sea surface using the DFVLR Minilidar, remote, 759
Measurements and tests performed in a low-gravity environment, optical, 634
Measuring absorption coefficients in crystalline materials, techniques for, 790
Measuring the homogeneity of infrared materials, 291
Measuring three-dimensional deformations, hybrid holographic interferometer for, 246
Mechanical loadings using integrated thermal/structural/optical numerical methods, predicting performance of optical systems undergoing thermal/, 166
Media for high-density optical recording, 382
Media: a survey, fast self-induced refractive index changes in optical, 220
Medical ultrasonics, optics in, 256
Metal mirrors, strain-free mounting techniques for, 187

Microcomputerized facility for on-line spectroscopic plasma diagnostics, 267
Microholography using a holographic optical element as a beamsplitter, noncoherent, 233
Micron astronomical polarimeter, a new ten, 019
Microphotographic reproductions by optimal corrections of original masks, reduction of errors of, 781
μsec pulses with a pyroelectric vidicon camera, imaging CO_2 high energy laser, 464
Military binocular, production engineering and implementation of a modular, 201
Minilidar, remote measurements of plume dispersion over sea surface using the DFVLR, 759
Miniature multiple-pulse Q-switched ruby laser holocamera for aerosol analysis, 907
Mirror, discrete actuator deformable, 316
Mirror mounts, design of Infrared Astronomical Satellite (IRAS) primary, 190
Mirror, three-actuator deformable water-cooled, 310
Mirrors and lenses, optical figure characterization for cylindrical, 412
Mirrors, strain-free mounting techniques for metal, 187
Modeling of optical trackers, computer, 861
Modified bootstrap sensitometry in radiography, 271
Modular military binocular, production engineering and implementation of a, 201
Modulation, liquid crystal infrared, 970
Molecular laser fluorescence in the study of detailed combustion processes, quantitative atomic and, 501
Monochromator, on the choice of slit width for a Czerny-Turner grating, 852
Mosaic sensor, background suppression and tracking with a staring, 103
Mounting techniques for metal mirrors, strain-free, 187
Mounts, design of Infrared Astronomical Satellite (IRAS) primary mirror, 190
Multiaperture emission tomography: quantum noise calculations, Fourier, 736
Multiple-pulse Q-switched ruby laser holocamera for aerosol analysis, miniature, 907
Multiplexing, two-dimensional image transmission through optical fibers by wavelength, 927
Multispectral scanner (TBAMS) system, radiometric performance of the test-bed aircraft, 772

National Television Systems Committee (NTSC) color video signal, two-dimensional transforms of the sampled, 417
New technique for blind deconvolution, 281
New 10 micron astronomical polarimeter, a, 019
Night vision imaging system (ANVIS), development of an aviator's, 208
1980s, the potential for acousto-optics in instrumentation: an overview for the, 712
Niobium oxide waveguides, in-plane scattering in glass and, 150
Noise calculations, Fourier multiaperture emission tomography: quantum, 736
Noise-limited signal processors for infrared surveillance, quantum-, 726
Noise removal, techniques for speckle, 472
Noise in the visual system, types of, 098
Noncoherent microholography using a holographic optical element as a beamsplitter, 233
Noncoherent optics image processing systems: comparison of approaches, representing bipolar and complex imagery in, 568
(NTSC) color video signal, two-dimensional transforms of the sampled National Television Systems Committee, 417
Numerical methods, predicting performance of optical systems undergoing thermal/mechanical loadings using integrated thermal/structural/optical, 166
Numerical optical computers, concepts for, 639

Object scene, exact area registration of different views of a common, 424
Omnidirectional laser scanner for supermarkets, 123
1.1 to 1.6 μm wavelength region, detectors for the, 658
1.6 μm wavelength region, detectors for the 1.1 to, 658
On-line spectroscopic plasma diagnostics, microcomputerized facility for, 267
Operator performance under degraded visibility conditions, stereo TV improves, 579
Optic correlator for chirp spectrum analysis, joint transform time-integrating acousto-, 556
Optic laser recording, acousto-, 143
Optical analysis of two long-focal-length aerial reconnaissance lenses, thermo-, 161
Optical bench for chemical laser testing, 625
Optical communication, atmospheric (Guest Ed.), 062
Optical communication through low-visibility weather, 076
Optical communications in the marine environment, surface and subsurface, 071
Optical computations for a spatially adaptive image data compression system, 616
Optical computers, concepts for numerical, 639
Optical detection techniques, determination of kinetic parameters of combustion processes using, 540
Optical disc data storage, archival, 394
Optical diskettes, large archival mass memory system using, 399
Optical distortion, techniques for evaluation of aircraft windscreen, 115
Optical element as a beamsplitter, noncoherent microholography using a holographic, 233
Optical elements, optical system with fiber, 095
Optical fibers by wavelength multiplexing, two-dimensional image transmission through, 927
Optical figure characterization for cylindrical mirrors and lenses, 412
Optical grating devices, amorphous As_2S_3 film waveguide with, 922
Optical measurements and tests performed in a low-gravity environment, 634
Optical media, a survey, fast self-induced refractive index changes in, 220
Optical numerical methods, predicting performance of optical systems undergoing thermal/mechanical loadings using integrated thermal/structural/, 166
Optical performance, effects of internal-compartment turbulence on camera, 893
Optical polarimeters for solar research, 002
Optical polarimetry, (Guest Ed.), 001
Optical processing of photographic images, 666
Optical propagation in the atmosphere, theory of, 063
Optical properties of tellurium films used for data recording, 373
Optical quality control of radiographic grids, incoherent, 562
Optical recording with amorphous materials, 379
Optical recording, media for high-density, 382
Optical seekers, ground clutter in, 846
Optical signal transmission, high-voltage current transformers with, 054
Optical single particle counters for fossil fuel systems, design criteria and recent developments of, 529
Optical spectral filter, 805
Optical system with fiber optical elements, 095
Optical system for the infrared, an all-reflective zoom, 450
Optical systems, thermal effects in, 156
Optical systems undergoing thermal/mechanical loadings using integrated thermal/structural/optical numerical methods, predicting performance of, 166
Optical techniques for combustion and analysis (Guest Ed.), 493
Optical techniques for increasing image width in cylindrical holographic stereograms, 241
Optical trackers, computer modeling of, 861
Optics, holographic coupler for fiber, 740
Optics image processing systems: comparison of approaches, representing bipolar and complex imagery in noncoherent, 568
Optics in instrumentation: an overview for the 1980s, the potential for acousto-, 712
Optics in medical ultrasonics, 256
Optimal corrections of original masks, reduction of errors of microphotographic reproductions by, 781
Optogalvanic spectroscopy—application to combustion systems, 522
Optomechanical design principles, lens barrel, 181
Optomechanical systems design (Guest Ed.), 155
Original masks, reduction of errors of microphotographic reproductions by optimal corrections of, 781
Outline of tolerancing (from performance specification to toleranced drawings), 175
Overview, focal plane architecture: an, 574
Overview for the 1980s, the potential for acousto-optics in instrumentation: an, 712
Overview, photo-optical range instrumentation: an, 701
Oxide waveguides, in-plane scattering in glass and niobium, 150

Parameters of combustion processes using optical detection techniques, determination of kinetic, 540
Particle counters for fossil fuel systems, design criteria and recent developments of optical single, 529
Passive infrared imaging systems, dual active , 976
Pattern recognition guidelines for three-dimensional image matching, 460
People's Republic of China (PRC), trends in high-speed camera development in the Union of Soviet Socialist Republics (USSR) and, 691
Performance under degraded visibility conditions, stereo TV improves operator, 579
Performance, effects of internal-compartment turbulence on camera optical, 893
Performance of optical systems undergoing thermal/mechanical loadings using integrated thermal/structural/optical numerical methods, predicting, 166
Performance specification to toleranced drawings), outline of tolerancing (from, 175
Performance of the test-bed aircraft multispectral scanner (TBAMS) system, radiometric, 772
Performance testing of laser ranger designators and thermal im ng systems, common collimator approach to alignment and, 765
Perpendicular-incidence null ellipsometry of surfaces with arbitrary anisotropy, 058
Perspective transformations urban scenes, image, 912
Phase chemistry of import to the energy technologies, aspects of sparsely studied gas, 546
Photo-optical range instrumentation: an overview, 701

Photoelasticity, dynamic transduction of forces on a surface by empirical, 050
Photographic image enhancement using chemical treatment techniques, 681
Photographic images, optical processing of, 666
Photography revisited, synchro-ballistic, 697
Photometer, an all-sky imaging, 216
Photometric technique for deriving a "best gamma" for displays, 651
Photometry and large-screen display resolution, computer-controlled, 785
Photo-Optical Instrumentation Engineering (Guest Ed.), 665
Piezo-optical effect in bi- and tri-dimensional polarimetry, 044
Planar thin films, alternative to ellipsometry for characterizing transparent, 111
Plasma diagnostics, microcomputerized facility for on-line spectroscopic, 267
Plasma shielding, laser radiation-induced air breakdown and, 962
Plate contours with a servo-scanning interferometer, determination of, 481
Plume dispersion over sea surface using the DFVLR Minilidar, remote measurements of, 759
Polarimeter, a new 10 micron astronomical, 019
Polarimeters for solar research, optical, 002
Polarimetry applied to alignment and angle measurement, 039
Polarimetry, optical (Guest Ed.), 001
Polarimetry, piezo-optical effect in bi- and tri-dimensional, 044
Polarimetry, stellar and solar x-ray, 031
Polaritons with surface roughness explained in terms of Wood anomalies of gratings, increase in Raman excitation of surface, 629
Polarization imagery, 014
Potential for acousto-optics in instrumentation: an overview for the 1980s, the, 712
(PRC), trends in high-speed camera development in the Union of Soviet Socialist Republics (USSR) and People's Republic of China, 691
Predicting performance of optical systems undergoing thermal/mechanical loadings using integrated thermal/structural/optical numerical methods, 166
Pressure force, absolute measurement of laser beam energy using its radiation, 437
Probe for low gas concentration detection, giant pulse laser Raman, 599
Processing: digital, charge-coupled device (CCD), or surface acoustic wave (SAW)?, radar signal, 795
Processing, digital image, 677
Processing, Kolmogorov-Smirnov test in image, 275
Processing and laser beam recording system, high performance image, 358
Processing of photographic images, optical, 666
Processing systems: comparison of approaches, representing bipolar and complex imagery in noncoherent optics image, 568
Processors for infrared surveillance, quantum-noise-limited signal, 726
Production engineering and implementation of a modular military binocular, 201
Pulsed rf CO_2 waveguide lasers, gain-switched, 769
Pulses with a pyroelectric vidicon camera, imaging CO_2 high energy laser μsec, 464
Pyroelectric detectors, developments in high-speed, 469

Quality control of radiographic grids, incoherent optical, 562
Quantitative atomic and molecular laser fluorescence in the study of detailed combustion processes, 501
Quantum noise calculations, Fourier multiaperture emission tomography:, 736
Quantum-noise-limited signal processors for infrared surveillance, 726

Radar image-to-map registration, 899
Radar signal processing: digital, charge-coupled device (CCD), or surface acoustic wave (SAW)?, 795
Radiation by atmospheric water vapor in the region 4.3 to 5.5 microns: preliminary measurements, absorption in infrared, 746
Radiation-induced air breakdown and plasma shielding, laser, 962
Radiation pressure force, absolute measurement of laser beam energy using its, 437
Radiographic grids, incoherent optical quality control of, 562
Radiographic tomography using rotating apertures, scatter reduction in conventional, 590
Radiography, modified bootstrap sensitometry in, 271
Radiometric performance of the test-bed aircraft multispectral scanner (TBAMS) system, 772
Radon transform iterations, limited-angle three-dimensional reconstructions using Fourier transform iterations and, 586
Raman excitation of surface polaritons with surface roughness explained in terms of Wood anomalies of gratings, increase in, 629
Raman measurement techniques, remote, 091
Raman probe for low gas concentration detection, giant pulse laser, 599
Raman spectroscopy (CARS), combustion diagnosis by coherent anti-Stokes, 494
Range instrumentation: an overview, photo-optical, 701
Ranger designators and thermal imaging systems, common collimator approach to alignment and performance testing of laser, 765
Rare-gas halide lasers with application to laser fusion, intensification of, 777
Real-time tunable spatial carrier, density slicing with a, 421
Reconnaissance lenses, thermo-optical analysis of two long-focal-length aerial, 161
Reconstructions using Fourier transform iterations and Radon transform iterations, limited-angle three-dimensional, 586
Recorder, description of a dry film tactical laser beam, 335
Recorder, a high-resolution in-line rapid wet-processed laser, 351
Recording, acousto-optic laser, 143
Recording with amorphous materials, optical, 379
Recording and data handling, laser (Guest Ed.), 329
Recording, high-capacity high-speed, 387
Recording, media for high-density optical, 382
Recording, optical properties of tellurium films used for data, 373
Recording system, design considerations for a flexible high-resolution film, 344
Recording system, high performance image processing and laser beam, 358
Recording, transparent electrophotographic film evaluation for high performance data, 365
Reduction in conventional radiographic tomography using rotating apertures, scatter, 590
Reduction of errors of microphotographic reproductions by optimal corrections of original masks, 781
Reflective zoom optical system for the infrared, an all-, 450
Refractive index changes in optical media, a survey, fast self-induced, 220
Region, detectors for the 1.1 to 1.6 μm wavelength, 658
Registration of different views of a common object scene, exact area, 424
Registration, radar image-to-map, 899
Remote measurements of plume dispersion over sea surface using the DFVLR Minilidar, 759
Remote Raman measurement techniques, 091
Removal, techniques for speckle noise, 472
Representing bipolar and complex imagery in noncoherent optics image processing systems: comparison of approaches, 568
Reproductions by optimal corrections of original masks, reduction of errors of microphotographic, 781
Research, optical polarimeters for, 002
Resolution, computer-controlled photometry and large-screen display, 785
Resolution film recording system, design considerations for a flexible high-, 344
Resolution in-line rapid wet-processed laser recorder, a high-, 351
Resolution interferometric spectrophotopolarimetry, high-, 025
Reticle systems, digital simulation of, 608
Review, electro-optically tuned spectral filters: a, 837
Revisited, synchro-ballistic photography, 697
Rf CO_2 waveguide lasers, gain-switched pulsed, 769
Rotating apertures, scatter reduction in conventional radiographic tomography using, 590
Roughness explained in terms of Wood anomalies of gratings, increase in Raman excitation of surface polaritons with surface, 629
Ruby laser holocamera for aerosol analysis, miniature multiple-pulse Q-switched, 907

Sampler—versatile high-energy laser (HEL) diagnostic tool, hole grating beam, 881
Sampling theorem for complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals, 594
Satellite interferometer system (SIS), analysis of a, 621
Satellite (IRAS) primary mirror mounts, design of Infrared Astronomical, 190
Satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected Infrared Astronomical, 195
Satellite surveillance, large-format ebsicon for low light level, 212
(SAW)?, Radar signal processing: digital, charge-coupled device (CCD), or surface acoustic wave, 795
Scanner for supermarkets, omnidirectional laser, 123
Scanner (TBAMS) system, radiometric performance of the test-bed aircraft multispectral, 772
Scanning interferometer, determination of plate contours with a servo-, 481
Scatter reduction in conventional radiographic tomography using rotating apertures, 590
Scattering in glass and niobium oxide waveguides, in-plane, 150
Scintigrams, digital boundary detection techniques for the analysis of gated cardiac, 719
Sea surface using the DFLR Minilidar, remote measurements of plume dispersion over, 759
Seekers, ground clutter in optical, 846
Selected five-color operation of a CO_2 laser, 325

Self-induced refractive index changes in optical media: a survey, fast, 220
Sensitometry in radiography, modified bootstrap, 271
Sensor, background suppression and tracking with a staring mosaic, 103
Sensor, high resolution multispectral linear focal plane using an area image, 873
Servo-scanning interferometer, determination of plate contours with a, 481
Shadow generation for the preparation of synthetic imagery, surface-, 446
Schlieren with a laser diode source, 801
Signal processing, GaAs integrated circuits and charge-coupled devices for high speed, 947
Signal processing: digital, charge-coupled device (CCD), or surface acoustic wave (SAW)?, radar, 795
Signal processors for infrared surveillance, quantum-noise-limited, 726
Signal transmission, high-voltage current transformers with optical, 054
Signal, two-dimensional transforms of the sampled National Television Systems Committee (NTSC) color video, 417
Signals, a sampling theorem for the complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary, 594
Simulation of reticle systems, digital, 608
(SIS), analysis of a satellite interferometer system, 621
Slicing with a real-time tunable spatial carrier, density, 421
Slit width for a Czerny-Turner grating monochromator, on the choice of a , 852
Small-computer digital image analysis, 932
Small helium-cooled infrared telescope for Spacelab 2, 285
Smirnov test in image processing, Kolmogorov-, 275
Solar concentrators, luminescent, 887
Solar research, optical polarimeters for, 002
Solar x-ray polarimetry, stellar and, 031
Source assessment of atmospheric aerosols: spectroscopic data from a rapid field technique, 866
Spacelab 2, small helium-cooled infrared telescope for, 285
Spatial carrier, density slicing with a real-time tunable, 421
Specification to toleranced drawings), outline of tolerancing (from performance, 175
Speckle noise removal, techniques for, 472
Speckle velocimeter using a zero-crossing technique for spatially integrated intensity fluctuation, laser, 320
Spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals, a sampling theorem for the complex, 594
Spectral filters, electronically tunable optical (Guest Editorial), 805
Spectral filters: a review, electro-optically tuned, 837
Spectrophotopolarimetry, high-resolution interferometric, 025
Spectroscopic data from a rapid field technique, source assessment of atmospheric aerosols:, 866
Spectroscopic plasma diagnostics, microcomputerized facility for on-line, 267
Spectroscopy—application to combustion systems, optogalvanic, 522
Spectroscopy (CARS), combustion diagnosis by coherent anti-Stokes Raman, 494
Spectrum analysis, joint transform time-integrating acousto-optic correlator for chirp, 556
Staring mosaic sensor, background suppression and tracking with a, 103
Stellar and solar x-ray polarimetry, 031
Stereo TV improves operator performance under degraded visibility conditions, 579
Stereograms, optical techniques for increasing image width in cylindrical holographic, 241
Stereograms, use of a holographic lens for producing cylindrical holographic, 236
Stokes Raman spectroscopy (CARS), combustion diagnosis by coherent anti-, 494
Storage, archival optical disc data, 394
Storage of binary data in electro-optic crystals, evaluation experiments on holographic, 404
Storage material, vanadium dioxide, 377
Strain-free mounting techniques for metal mirrors, 187
Structural/optical numerical methods, predicting performance of optical systems undergoing thermal/mechanical loadings using integrated thermal/, 166
Subsurface optical communications in the marine environment, surface and, 071
Supermarkets, omnidirectional laser scanner for, 123
Suppression and tracking with a staring mosaic sensor, background, 103
Surface acoustic wave (SAW)?, radar signal processing: digital, charge-coupled device (CCD), or, 795
Surface by empirical photoelasticity, dynamic transduction of forces on a, 050
Surface polaritons with surface roughness explained in terms of Wood anomalies of gratings, increase in Raman excitation of, 629
Surface roughness explained in terms of Wood anomalies of gratings, increase in Raman excitation of surface polaritons with, 629
Surface-shadow generation for the preparation of synthetic imagery, 446
Surface and subsurface optical communications in the marine environment, 071
Surface using the DFVLR Minilidar, remote measurements of plume dispersion over sea, 759
Surfaces with arbitrary anisotropy, perpendicular-incidence null ellipsometry of, 058
Surfaces, laser electro-optic system for rapid three-dimensional (3-D) topographic mapping of, 953
Surveillance, large-format ebsicon for low light level satellite, 212
Surveillance, quantum-noise-limited signal processors for infrared, 726
Synchro-ballistic photography revisited, 697
Synthetic imagery, surface-shadow generation for the preparation of, 446
Systems design, optomechanical (Guest Ed.), 155

Tactical laser beam recorder, description of a dry film, 335
(TBAMS) system, radiometric performance of the test-bed aircraft multispectral scanner, 772
Techniques for combustion and analysis, optical (Guest Ed.), 493
Techniques for evaluation of aircraft windscreen optical distortion, 115
Techniques for measuring absorption coefficients in crystalline materials, 790
Techniques for speckle noise removal, 472
Technology, excimer laser, 935
Telescope, alignment and evaluation of the cryogenic corrected Infrared Astronomical Satellite (IRAS), 195
Telescope for Spacelab 2, small helium-cooled infrared, 285
Tellurium films used for data recording, optical properties of, 373
10 micron astronomical polarimeter, a new, 019
Test-bed aircraft multispectral scanner (TBAMS) system, radiometric performance of the, 772
Testing of laser ranger designators and thermal imaging systems, common collimator approach to alignment and performance, 765
Testing, optical bench for chemical laser, 625
Tests performed in a low-gravity environment, optical measurements and, 634
Theorem for the complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals, sampling, 594
Theory of optical propagation in the atmosphere, 063
Thermal effects in optical systems, 156
Thermal imaging systems, common collimator approach to alignment and performance testing of laser ranger designators and, 765
Thermal/mechanical loadings using integrated thermal/structural/optical numerical methods, predicting performance of optical systems undergoing, 166
Thermal/structural/optical numerical methods, predicting performance of optical systems undergoing thermal/mechanical loadings using integrated, 166
Thermo-optical analysis of two long-focal-length aerial reconnaissance lenses, 161
Thin films, alternative to ellipsometry for characterizing transparent planar, 111
Three-actuator deformable water-cooled mirror, 310
Three-dimensional deformations, hybrid holographic interferometer for measuring, 246
Three-dimensional image matching, pattern recognition guidelines for, 460
Three-dimensional reconstructions using Fourier transform iterations and Radon transform iterations, limited-angle, 586
Three-dimensional (3-D) topographic mapping of surfaces, laser electro-optic system for rapid, 953
Time-integrating acousto-optic correlator for chirp spectrum analysis, joint transform, 556
Time tunable spatial carrier, density slicing with a real-, 421
Tokamak diagnostics, application of computerized tomography techniques to, 486
Toleranced drawings), outline of tolerancing (from performance specification to, 175
Tolerancing (from performance specification to toleranced drawings), outline of, 175
Tomography: quantum noise calculations, Fourier multiaperture emission, 736
Tomography techniques to tokamak diagnostics, application of computerized, 486
Tomography using rotating apertures, scatter reduction in conventional radiographic, 590
Topographic mapping of surfaces, laser electro-optic system for rapid three-dimensional (3-D), 953
Trackers for high-accuracy guidance applications, charge-coupled device (CCD), 135
Tracking with a staring mosaic sensor, background suppression and, 103
Transduction of forces on a surface by empirical photoelasticity, dynamic, 050
Transform iterations, limited-angle three-dimensional reconstructions using Fourier transform iterations and Radon, 586
Transform time-integrating acousto-optic correlator for chirp spectrum analysis, joint, 556
Transformations—urban scenes, image perspective, 912

Transformers with optical signal transmission, high-voltage current, 054
Transforms of the sampled National Television Systems Committee (NTSC) color video signal, two-dimensional, 417
Transmission gratings for the extreme ultraviolet, 753
Transmission, high-voltage current transformers with optical signal, 054
Transmission through optical fibers by wavelength multiplexing, two-dimensional image, 927
Transparent electrophotographic film evaluation for high performance data recording, 365
Transparent planar thin films, alternative to ellipsometry for characterizing, 111
Treatment techniques, photographic image enhancement using chemical, 681
Trends in high-speed camera development in the Union of Soviet Socialist Republics (USSR) and People's Republic of China (PRC), 691
Tri-dimensional polarimetry, piezo-optical effect in bi- and, 044
Tunable birefringent filters, 815
Tunable Fabry-Perot filters, 806
Tunable filter, electro-optic, 830
Tunable filters, acousto-optic, 824
Tunable optical spectral filters, electronically (Guest Editorial), 805
Tunable spatial carrier, density slicing with a real-time, 421
Turbulence on camera optical performance, effects of internal-compartment, 893
Turner grating monochromator: on the choice of slit width for a Czerny-, 852
TV improves operator performance under degraded visibility conditions, stereo, 579
Two-dimensional image transmission through optical fibers by wavelength multiplexing, 927
Two-dimensional transforms of the sampled National Television Systems Committee (NTSC) color video signal, 417
Types of noise in the visual system, 098

Ultrasonics, optics in medical, 256
Ultraviolet, transmission gratings for the extreme, 753
Union of Soviet Socialist Republics (USSR) and People's Republic of China (PRC), trends in high-speed camera development in the, 691
Urban scenes, image perspective transformations—, 912
Use of a holographic lens for producing cylindrical holographic stereograms, 236
(USSR) and People's Republic of China (PRC), trends in high-speed camera development in the Union of Soviet Socialist Republics, 691

Vanadium dioxide storage material, 377
Vapor investigations, airborne differential absorption lidar system for water, 084
Vapor in the region 4.3 to 5.5 microns: preliminary measurements, absorption of infrared radiation by atmospheric water, 746
Velocimeter using a zero-crossing technique for spatially integrated intensity fluctuation, laser speckle, 320
Video signal, two-dimensional transforms of the sampled National Television Systems Committee (NTSC) color, 417
Video systems, instrumentation, 688
Vidicon camera, imaging CO_2 high energy laser μsec pulses with a pyroelectric, 464
Visibility conditions, stereo TV operator performance under degraded, 579
Visibility weather, optical communication through low-, 076
Vision imaging system (ANVIS), development of an aviator's night, 208
Visual system, types of noise in the, 098
Voltage current transformers with optical signal transmission, high, 054

Water-cooled mirror, three-actuator deformable, 310
Water vapor investigations, airborne differential absorption lidar system for, 084
Water vapor in the region 4.3 to 5.5 microns: preliminary measurements, absorption of infrared radiation by atmospheric, 746
Wave (SAW)?, radar signal processing: digital, charge-coupled device (CCD), or surface acoustic, 795
Waveguide lasers, gain-switched pulsed rf CO_2, 769
Waveguide with optical grating devices, amorphous As_2S_3 film, 922
Waveguides, in-plane scattering in glass and niobium oxide, 150
Wavelength multiplexing, two-dimensional image transmission through optical fibers by, 927
Wavelength region, detectors for the 1.1 to 1.1 μm, 658
Wavelength scaling holographic elements, 756
Weather, optical communication through low-visibility, 076
Wideband comet camera lens design, 941
Width in cylindrical holographic stereograms, optical techniques for increasing image, 241
Windscreen optical distortion, techniques for evaluation of aircraft, 115
Wood anomalies of gratings, increase in Raman excitation of surface polaritons with surface roughness explained in terms of, 629

X-ray Astrophysics Facility (AXAF), Advanced, 297
X-ray polarimetry, stellar and solar, 031

Zero-crossing technique for spatially integrated intensity fluctuation, laser speckle velocimeter using a, 320
Zoom optical system for the infrared, an all-reflective, 450

Keyword Index, Optical Engineering Vol. 20 (1981)

Abel transform, 267
Aberrations, 450
Absolute distance measurement, 129
Absorption
  atmospheric, 084, 746
  differential, 084
Absorption measurements, 790
Absorption,
  nonlinear, 790
  surface, 790
Acoustic waves, surface, 795
Acoustical imaging, 256
Acousto-optic diffraction, 824
Acousto-optic scanning, 143
Acousto-optics, 399, 556, 712
Active optics, 310, 316
Active systems, 976
Adaptive optics, 076
Adverse environments, 156, 161
Aerosol induced breakdown, 962
Aerosols, 907
  atmospheric, 866
Air turbulence, 893
Aircraft compartment, 893
Aircraft windscreens, 115
Airflow, 893
Algorithm, fusion diagnostics/computerized tomography reconstruction, 486
Alignment, 039, 195, 765
Amorphous film, 922
Amorphous materials, 379
Analysis, combustion and, 494, 501, 511, 522, 529, 540, 546
Analysis methods, numerical, 166
Analysis,
  signal, 594
  spectrum, 556
  stress, 044
  time-varying image, 719
Anisotropy, 058
Anomalies, Wood, 629
Aperture imaging, coded, 736
Apertures, rotating, 590
Arc lamps, 267
Archival data storage, 394
Archival storage, 399
Array,
  charge-coupled device (CCD), 873
  detector, 574, 873
  fiber, 927
  focal plane, 574
Artificial clouds, 025
Aspheric optics, 208
Astronomical Satellite, Infrared, 190
Astronomy, 285
  infrared, 019, 621
  solar, 002
  x-ray, 031
Atmospheric
  absorption, 084, 746
  aerosols, 866
  optical communications, 063, 071, 076
  optical propagation, 076, 962
Attitude control, 135
Aurora, 216
Automated replication, 953
Autoradiography, 681
Averaging, signal, 759

Background suppression, 103
Ballistic photography, synchro-, 697
Bandwidth compression, image, 616
Barrel design, lens, 181
Beam diagnostics, 881
Beam sampler, 881
Beam, scanning x-ray, 590
Bench, optical, 625
Beryllium optics, 190
Binoculars, 201
Bipolar representations, 568
Birefringence, 019, 815
Birefringent filters, 824, 837
Bistability, 220
Black holes, 031
Bootstrap sensitometry, 271
Boresight, 765
Boresighting, 854
Boundary detection, 719
Boundary layer, marine, 866
Breakdown, aerosol induced 962
Breakdown, gas 962
Budgets, error, 175

CO_2 laser, pulsed, 464
CO_2 lasers, 325, 469, 769
Calibration, 772
Calorimetry, 790
Camera models, 912
Camera tube, 893
Cameras, 691, 941
Cardiology, 719
Carrier, tunable spatial, 412
Cavity power, closed, 625
Centroid, 135
Charge-coupled device (CCD) arrays, 873
Charge-coupled devices, 135, 574, 795, 947
Chemical kinetics, 501
Chemical lasers, 625
Chemical processes, thermal/, 546
Chemistry,
  flame, 501
  gas phase, 546
  laser, 935
Cholesteric liquid crystals, 970
Cinetheodolites, 701
Closed cavity power, 625
Clouds, 063
Clouds, artificial, 025
Clouds/fog, 071
Clutter, terrain, 846
Coded aperture imaging, 736
Coherent optics, 666
Cold window, 893
Collimators, 765
Color, 873
Color holograms, 749
Color images, 417
Combustion and analysis, 494, 501, 511, 522, 529, 540, 546
Communication, low-visibility, 076

Communications, atmospheric
optical, 063, 071, 076
Complex spectrogram, 594
Compression, image bandwidth, 616
Computer-controlled polishing, 195
Computer
image processing, 677
modeling, 746
programs, 253
Computerized modeling, 861
Computerized tomography reconstruction algorithm, fusion diagnostics/, 486
Computers, 267
digital, 639
Concentrators (LSC), luminescent solar, 887
Concentrators, solar, 887
Cone, missing, 586
Connectors, 740
Constants, optical, 111
Contours, 481
Contours, depth, 481
Control, attitude, 135
Control, exposure, 749
Control, optical beam, 450
Control, process, 712
Convolution, cyclic, 608
Corrections, wavefront, 310
Counter, single particle, 529
Coupled waves, 830
Couplers, fiber-optic, 740
Coupling, fiber, 740
Cryo figuring, 195
Cryogenics, 190
Crystals, 790
Crystals, cholesteric liquid, 970
Crystals, electro-optic, 404
Crystals, liquid, 970
Current transformer, 054
Cyclic convolution, 608
Cylindrical holographic stereograms, 241
Cylindrical lens, 236
Cylindrical lens, holographic, 236, 241
Cylindrical optics, 412
Czerny-Turner systems, 852

deNO$_x$, thermal, 540
D curve, and H, 271
Data recording, high resolution optical, 344
Data recording, optical, 330, 335, 344, 351, 358, 365, 373, 377, 379, 382, 387, 394, 399, 404
Data storage,
archival, 394
direct spot, 365
optical, 379
Dc voltages, 830
Deconvolution, 281
Deflector, image, 605
Deformable mirrors, 310, 316
Deformation, mirror, 187
Deformation, three-dimensional, 246
Depth contours, 481
Design,
lens, 941
lens barrel, 181
optical, 941
optomechanical, 156, 161, 166, 175, 181, 187, 190, 195, 201, 208
Designators, laser, 854
Detection, 275, 726
boundary, 719
edge, 719
heterodyne, 621, 976
satellite, 212
Detection of unresolved images, 212
Detector arrays, 574, 873
Detectors, infrared, 469, 658
Detectors, mosaic, 574
Diagnostics, beam, 881
Diagnostics/computerized tomography reconstruction algorithm, fusion, 486
Diagnostics, plasma, 267
Differential absorption, 084
Diffraction, acousto-optic, 824
Digital
computers, 639
image analysis, 932
image processing, 719, 912
images, 358, 651
mensuration, 358
processing 358, 677
reticle simulation, 608
Diode lasers, 382, 440, 801
Direct spot data storage, 365
Dispersion, 927
Dispersion, plume, 759
Display, holographic, 236, 241
Displays, 098, 579, 651, 785
Distance measurement, absolute, 129
Drawings, optical, 175
Dry film, 335
Dual active/passive imaging systems, 976

Ebsicons, 212
Edge detection, 719
Electronically tunable optical
spectral filters, 805, 806, 815, 824, 830, 837
Electronics, high speed, 947
Electro-optic
crystals, 404
effect, 830
Electro-optical processing, 616
Electro-optics, 837, 953
Electrophotographic films, transparent, 365
Electrophotography, 365
Elements,
holographic optical, 236, 756
optical, 756
Ellipsometry, 058, 373
Emission tomography, 736
Energy lasers, high, 464
Energy transfer, 511
Engineering, photo-optical instrumentation, 666, 677, 681, 688, 691, 697, 701, 712
Enhancement, 681
Environment, marine, 071
Environmental optics, 084
Environments, adverse, 156, 161
Erasable reusable material, 377
Error budgets, 175
Evaluation, interferogram, 253
Excimer lasers, 777, 935
Excitation, Raman, 629
Excitation, two-photon, 501
Expansion, Gabor's signal, 594
Exposure control, 749
Extreme ultraviolet, 753

Fabry-Perot filters, 806, 837
Fiber array, 927
Fiber coupling, 740
Fiber-optic couplers, 740
Fiber optics, 054, 095, 658, 740, 927
Fibers, optical, 927
Field of view, 815
Figuring, cyro, 195
Film,
amorphous, 922
dry, 335
recording system, 344
thin, 058, 373
transparent electrophotographic, 365
Filtering, 103
image, 472
spatial, 412, 608
Filters, 712
birefringent, 824, 837
electronically tunable optical
spectral, 806, 815, 824, 830, 837
Fabry-Perot, 837
optical 815, 837
spatial, 634, 726
tunable, 837
tunable spectral, 806
Fine-line image, 291
Fixed metric instrumentation, 701
Flame chemistry, 501
Fluorescence, 681, 887
laser, 501
laser-induced, 511
Fluorescent concentrators, 887
Focal plane arrays, 574
Focal planes, mosaic, 873
Fog, 063
/clouds, 071
Force transduction, 050
Forward looking infrared, 976
Fossil-fuel systems, 529
Fourier transform iterations, 586
Fractional fringe measurements, 129
Fresnel lens, 095
Fringe measurements, fractional, 129
Fuel systems, fossil-, 529
Fusion diagnostics/computerized tomography reconstruction algorithm, 486
Fusion, laser, 777

GaAs, 947
Gabor's signal expansion, 594
Gain-switched, 769
Gas
breakdown, 962
phase chemistry, 546
phase kinetics, 540
GEODSS sensor, 212
Geometric optics, 450, 605
Geometric sensor models, 899
Graphics, three-dimensional, 912
Grating, 881, 922
monochromator, 852
production, transmission, 753
properties, transmission, 753
Gravitational waves, 044
Gravity measurements, low-, 634
Grid board photographs, 115
Grids, radiographic, 562

H and D curve, 271
Halley's Comet, 941
Heterodyne detection, 621, 976
HID, 267
High energy lasers, 464, 881
High resolution optical data recording, 344
High speed electronics, 947
High speed photography, 691, 697
High voltage, 054
Holocamera, 907
Holograms,
color, 749
multiplexed, 241
thermoplastic, 246
Holographic,
cylindrical lens, 236, 241
display, 236, 241
optical elements, 236, 241, 756
stereograms, cylindrical, 241
Holography, 115, 233, 246, 365, 387, 404, 740, 749, 756, 907
Holography, particle, 907
Homing, 861
Hydroxyl radical, 511

Image
analysis, digital, 932
analysis, time-varying, 719
bandwidth compression, 616
deflector, 605
filtering, 472
fine-line, 291
overlay, 424
processing, 103, 246, 275, 281, 417, 424, 446, 460, 562, 568, 616, 677, 781, 899
processing, digital, 719, 912
processing, incoherent, 568
processing, medical, 719
processing, noncoherent, 568
processing, optical, 412, 666
quality, 382, 651
reconstructed, 927
recording, 330
registration, 899
restoration, 472, 781
scanning, 873
sensors, 873
transmission, 095
Images, 014
color, 417
detection of unresolved, 212
digital, 358, 651
photographic, 666
synthetic, 446
three-dimensional, 460
Imaging, 688, 953
acoustical, 256
coded aperture, 736
infrared, 464, 976
photometry, 216
soft x-ray, 486
spectroscopy, 815
system, multispectral, 772
systems, 765
three-dimensional, 953
Incoherent image processing, 568
Incoherent optical processing, 562
Index of refraction, 220
Infrared, 285, 440, 446, 726, 746, 801
Astronomical Satellite, 190
astronomy, 019, 621
detectors, 469, 658
imaging, 464, 976
materials, 291
modulation, 970
optics, 574
radar, 976
spectra, 866
Instrumentation, 256
engineering, photo-optical, 666, 677, 681, 688, 691, 697, 701, 712
fixed metric, 701
optical, 181
Integrated circuits, 947
Integrated optics, 150, 639
Intelligence, artificial, 953
Intensification, 681
Interfaces, 267
Interferogram evaluation, 253
Interferometers, 025, 712
synthetic Michelson, 129
Interferometry, 246, 325, 481, 893
multicolor, 129
spatial, 621
Interpolation, 135
Interpretability, 651
Iodine, 267
Ionization, 522
Iterations, Fourier transform, 586
Iterations, Radon transform, 586

Kinetics,
chemical, 501
gas phase, 540
laser, 935

Laboratory samples, 025
Lamps, arc, 267
Laser
beam recorder, tactical, 335
chemistry, 935
damage measurements, 469
designators, 854
diodes, 801
fluorescence, 501
fusion, 777
-induced fluorescence, 511

kinetics, 935
pointing, 854
recorders, 351
recording, 143, 330
scanning, 123
speckle, 320
spectroscopy, 091
windows, 790
Lasers, 039, 440, 437, 522, 599, 625, 634, 777, 907, 953, 962
CO_2, 469, 325, 769
XeCl, 935
chemical, 625
diode, 382, 440
excimer, 777, 935,
high energy, 464, 881
two-color CO_2, 129
waveguide, 769
Lens
barrel design, 181
cylindrical, 236
design, 941
Fresnel, 095
holographic cylindrical, 236, 241
-mirror combination, 450
Lenses, 412
reconnaissance, 161
Level, low light, 212
Lidar, 084, 759
Light
levels, low, 216
polarized, 050
scattering, 076, 599
Limited-angle reconstruction, 586
Linewidth, 932
Liquid crystals, 970
cholesteric, 970
Lithium niobate, 404
Low-gravity measurements, 634
Low light levels, 212, 216
Low visibility communication, 076
Luminescence, 887
Luminescent solar concentrators (LSC), 887

Magnetograph, 002
Magneto-optics, 054
Magnifier, 605
Manufacturing, optical, 201
Mapping, topographic, 953
Marine boundary layer, 866
Marine environment, 071
Mass storage, 399
Material, erasable reusable, 377
Materials, 181
Measurement,
optical particle, 529
power, 437
remote, 084
resolution, 785
Measurements
absorption, 790
fractional fringe, 129
laser damage, 469
low-gravity, 634
Mechanical scanners, 115
Medical applications, 256
Medical image procesing, 719
Medicine, nuclear, 719
Memories, optical, 399
Mensuration, digital, 358
Mercury, 267
Metal mirrors, 187
Methane, 091
Metric instrumentation, fixed, 701
Metric systems, 701
Metrology, 481
optical, 932
Michelson interferometer, synthetic, 129
Microholography, 233
Microphotography, 781
Microprocessor, 135, 830
Microscopy, 233
Mirror deformation, 187
Mirror mounts, 190, 625
Mirrors, 412
deformable, 310, 316
metal, 187
Misalignment, 932
Missing cone, 586
Modeling
computer, 746
computerized, 861
Models
camera, 912
geometric sensor, 899
Modular optics, 201
Modulation, 044
infrared, 970
optical, 970
spatial, 412
Modulator, 970
Moire fringes, 562
Monitoring techniques, 501
Monochromator, grating, 852
Mosaic detectors, 574
Mosaic focal planes, 873
Mounts, 187
design, 161
mirror, 190, 625
Multicolor interferometry, 129
Multiple scattering, 063, 071
Multiplexed holograms, 241
Multiplexing, wavelength, 927
Multispectral imaging system, 772

NO, 540
Narcissus, 976
NASTRAN analysis, 190, 310
Night vision, 208
Noise removal, speckle, 472
Noise sources, 123
Noise tomography, quantum, 736
Noncoherent image processing, 568
Nonlinear absorption, 790
Nonlinear optics, 220, 494
Nuclear medicine, 719
Numerical analysis methods, 166
Numerical optics, 639

Object scenes, three-dimensional, 424
Ocean temperature, subsurface, 091
Operator performance, 579
Optic couplers, fiber, 740
Optic scanning, acousto-, 143
Optical
beam control, 450
bench, 625
communications, atmospheric, 063, 071
constants, 111
data recording, 330, 335, 344, 351, 358, 365, 373, 377, 379, 382, 387, 394, 399, 404
data recording, high resolution, 344
data storage, 379
design, 156, 161, 941
disc, 330, 394
disks, 399
drawings, 175
effect, piezo-, 044
elements, 756
elements, holographic, 236, 241, 756
fibers, 927
filters, 815, 837
image processing, 412, 666
instrumentation, 181
manufacturing, 201
memories, 399
metrology, 932
modulation, 970
particle measurement, 529
polarimetry, 002, 014, 019, 025, 031, 039 044, 050, 054, 058
processing, 616, 639
processing, incoherent, 562
propagation, 063, 071
propagation, atmospheric, 076
properties, 373
receivers, 658
seekers, 861, 846
sensing, 712
signal processing, 795, 947
spectral filters, electronically tunable, 806, 815, 824, 830, 837
system performance predictions, 166
system tolerancing, 175
systems, 935
testing, 115, 253, 412, 625, 765
trackers, 861
waveguides, 150
Optics
acousto-, 556, 712
active, 310, 316
aspheric, 208
beryllium, 190
coherent, 666
cylindrical, 412
environmental, 084
fiber, 658, 740
geometric, 450, 605
infrared, 574
integrated, 150, 639
magneto-, 054
modular, 201
nonlinear, 220, 494
numerical, 639
plastic, 208
reflective zoom, 450
space, 941
x-ray, 297
zoom, 450
Optimization, 781
Optogalvanic, 522
Optomechanical design, 156, 161, 166, 175, 181, 187, 190, 195, 201, 208
Overlay, image, 424

Particle counter, single, 529
Particle holography, 907
Particle measurement, optical, 529
Particulates, 866
Passband synthesis, 830
Passive systems, 976
Pattern recognition, 460, 726, 953
PCB, 970
People's Republic of China (PRC), 691
Performance, operator, 579
Performance predictions, optical system, 166
Perspective, transformations, 912
Phase chemistry, gas, 546
Phase compensation, 076
Phase-space signal representation, 594
Phase transition material, 377
Photodetectors, 658
Photodiodes, 658
Photoelasticity, 050
Photogrammetry, 953
Photographic images, 666
Photographs, grid board, 115
Photography, 014, 697
high speed, 691
high speed, 697
speckle, 115
synchro-ballistic, 697
Photometry, 216, 785
imaging, 216
Photo-optical instrumentation engineering, 666, 677, 681, 688, 691, 697, 701, 712
Physical development, 681
Piezo-optical effect, 044
Plane arrays, focal, 574
Plasma diagnostics, 267
Plasma shielding, 962
Plasma, tokamak, 486
Plastic optics, 208
Plume dispersion, 759
Pointing, laser, 854
Polarimeters, 002
x-ray, 031
Polarimetry, 599
optical, 002, 014, 919, 025, 031, 039, 044, 050, 054, 058
solar, 002
Polaritons, surface, 629
Polarization, 014, 111
Polarizations, principal, 830
Polarized light, 050, 815
Polishing, computer-controlled, 195
Polynomials, Zernike, 195
Power, closed cavity, 625
Power measurement, 437
Power, pulse, 935
(PRC), People's Republic of China, 691
Predictions, optical system performance, 166
Pressure, radiation, 437
Prism, 605
Process control, 712
Processes, thermal/chemical, 546
Processing
digital, 358, 677
digital image, 719
electro-optical, 616
image, 103, 246, 275, 281, 424, 446, 460, 562, 568, 616, 677, 781
incoherent image, 568
incoherent optical, 562
medical image, 719
noncoherent image, 568
optical, 616, 639
optical image, 412, 666
optical signal, 795
signal, 123, 417, 556, 712, 726
Processor, video, 135
Processor, time-integrating, 556
Production, transmission grating, 753
Programs, computer, 253
Projections, reconstructions from, 586
Propagation
atmospheric, 962
optical, 063, 071
Properties
optical, 373
transmission grating, 753
Pulse power, 935
Pulsed CO_2 laser, 464
Pulsed rf pump, 769
Pump, rf pulsed, 769
Pyroelectric detectors, 469
Pyroelectric vidicons, 464

Q-switched lasers, 907
Quality, image, 382, 651
Quantum noise tomography, 736
Quasars, 031
Quenching, 501, 511

Radar
infrared, 976
signals, 795
Radiance, 267
Radiation pressure, 437
Radical, hydroxyl, 511
Radiographic
grids, 562
sensitometry, 271
tomography, 590
Radiography, 562
slit, 590
Radiometry, 772
Radon transform iterations, 586
Raman effect, 777
Raman excitation, 629
Raman spectroscopy, 091, 494, 599
Raman spectroscopy, remote, 091
Receivers, optical, 658
Recognition, pattern, 460, 726
Reconnaissance lenses, 161
Reconstructed image, 927

Reconstruction algorithm, fusion diagnostics/computerized tomography, 486
Reconstruction, limited-angle, 586
Reconstructions from projections, 586
Recorders
  tactical laser beam, 335
  television, 143
  laser, 351
Recording
  high resolution optical data, 344
  image, 330
  laser, 143, 330
  materials, 382
  optical data, 330, 335, 344, 351, 358, 365, 373, 377, 379, 382, 387, 394, 399, 404
  signal, 330
  system, film, 344
  wideband, 387, 394
Reflection, 111
Reflective zoom optics, 450
Refraction, 291
Refraction, index of, 220
Refractive index change, 922
Registration, image, 899
Remote measurement, 084
Remote Raman spectroscopy, 091
Remote sensing, 014, 091, 772
Removal, speckle noise, 472
Replication, automated, 953
Representation, phase-space signal, 594
Representations, bipolar, 568
Resolution measurement, 785
Resolution optical data recording, high, 344
Response, visual, 651
Restoration, image, 472, 781
Reticle simulation, digital, 608
Reticles, 608
Retroreflection, 115
Retroreflective sensing, 123
Reusable material, erasable, 377
Rf pump, pulsed, 769
Robot vision, 953
Rotating apertures, 590
Roughness, surface, 629

Satellite detection, 212
Satellite, Infrared Astronomical, 190
Scaling, wavelength, 756
Scanners, 143
  mechanical, 115
Scanning
  image, 873
  laser, 123
  technique, 291
  x-ray beams, 590
Scattering, 150, 866
  light, 076, 599
  multiple, 063, 071
Scenes, three-dimensional object, 424
Schlieren, 634, 801
Scintigraphy, 719
Screen display resolution, computer-controlled photometry and large-, 785
Screen-film systems, 271
Seekers
  optical, 846
  target, 846
Selection, wavelength, 325
Self-induced effects, 220
Sensing
  optical, 712
  remote, 014, 772
  retroreflective, 123
Sensitometry, 271
  bootstrap, 271
  radiographic, 271
Sensor
  GEODSS, 212
  models, geometric, 899
  staring, 103
  image, 873
Shadowgraphs, 634
Shielding, plasma, 962
Signal
  analysis, 594
  averaging, 759
  expansion, Gabor's, 594
  processing, 123, 417, 556, 712, 726, 947
  processing, optical, 795, 947
  recording, 330
  representation, phase-space, 594
Signals,
  radar, 795
Simulation
  digital reticle, 608
  target, 450
Single particle counter, 529
Slit radiography, 590
Slit widths, 852
Soft x-ray imaging, 486
Solar
  astronomy, 002
  concentrators, 887
  concentrators (LSC), luminescent, 887
  flares, 031
  polarimetry, 002
Space optics, 941
Space signal representation, phase-, 594
Spatial
  carrier, tunable, 412
  filtering, 412, 608
  filters, 634, 726
  interferometry, 621
  modulation, 412
  noise, 098
  uniformity, 586
Specifications, 175
Speckle
  laser, 320
  noise removal, 472
  photography, 115
  velocimeter, 320
Spectra, 753
  infrared, 866
Spectral
  filters, electronically tunable optical, 806, 815, 824, 830, 837
  subtraction, 472
Spectrogram, complex, 594
Spectrometers, 025, 712
  electronically programmable, 824
Spectrophotometers, 712
Spectrophotometry, 790
Spectropolarimeter, 025
Spectroscopy, 267, 511, 522
  imaging, 815
  laser, 091
  Raman, 091, 494, 599
  remote Raman, 091
Spectrum analysis, 556
Speed photography, high-, 691, 697
Spot data storage, direct, 365
Star tracker, 135
Staring sensor, 103
STELLAR, 135
Stereo viewing, 579
Stereograms, cylindrical holographic, 241
Storage
  archival, 399
  archival data, 394
  direct spot data, 365
  mass, 399
Stress analysis, 044
Subsurface ocean temperature, 091
Subtraction, spectral, 472
Sunspots, 002
Supermarket, 123
Supernova remnants, 031
Suppression, background, 103
Surface
  absorption, 790
  acoustic waves, 795
  polaritons, 629
  roughness, 629
Surfaces, 058
Surveillance systems, 701
Switched, gain-, 769
Synchro-ballistic photography, 697
Synthetic images, 446
Synthetic Michelson interferometer, 129
System tolerancing, optical, 175
Systems, imaging, 765

Tactical laser beam recorder, 335
Target
  seekers, 846
  simulation, 450
  false, 846
Telescopes, 195, 285
  tracking, 701
Television, 417, 579, 688
  recorder, 143
Tellurium, 373
Terrain clutter, 846
Testing, optical, 115, 253, 412, 625, 765
Thermal
  deNO$_x$, 540
  /chemical processes, 546
  effects, 156, 161
Thermocouples, 893
Thermoelectrics, 135
Thermoplastic hologram, 246
Thin films, 058, 111, 373
Three-dimensional
  deformation, 246
  graphics, 912
  images, 460
  imaging, 953
  object scenes, 424
Time-integrating processors, 556
Time-varying image analysis, 719
Tokamak plasma, 486
Tolerancing, optical system, 175
Tomography, 590, 736
  emission, 736
  quantum noise, 736
  radiographic, 590
  reconstruction algorithm, fusion diagnostics/computerized, 486
Topographic mapping, 953
Tracking telescopes, 701
Transfer, energy, 511
Transform
  Abel, 267
  iterations, Fourier, 586
  iterations, Radon, 586
Transformations, perspective, 912
Transformer, current, 054
Transition material, phase, 377
Transmission
  grating production, 753
  grating properties, 753
  image, 095
Transparent electrophotographic films, 365
Tunable
  filters, 837
  optical spectral filters, electronically, 805, 806, 815, 824, 830, 837
  spatial carrier, 412
  spectral filters, 806
Turbulence, 063
  effects, 893
Turner systems, Czerny-, 852
Two-color CO_2 lasers, 129
Two-photon excitation, 501

Ultrasonics, 256
Ultraviolet, 753
  extreme, 753
Uniformity, spatial, 586
Union of Soviet Socialist Republics (USSR), 691
Universal Product Code, 123
Unresolved images, detection of, 212
(USSR), Union of Soviet Socialist Republics, 691

Vanadium dioxide, 377
Vapor, water, 091
Velocimeter, speckle, 320
Video, 688
  processor, 135
Vidicons, pyroelectric, 464
Viewing, stereo, 579
Vision, 098
Visual response, 651
Voltage, high, 054

Water vapor, 091
Wavefront corrections, 310
Waveguide lasers, 769
Waveguides, 922
  optical, 150
Wavelength
  multiplexing, 927
  scaling, 756
  selection, 325
Waves
  gravitational, 044
  surface acoustic, 795
Wet process, 351
Wideband recording, 387, 394
Window, cold, 893
Windows, laser, 790
Windscreens, aircraft, 115
Wood anomalies, 629

XeCl lasers, 935
X-ray
  apparatus, 562
  astronomy, 031
  beams, scanning, 590
  optics, 297
  polarimeters, 031

Zeeman effect, 002
Zernike polynomials, 195
Zoom optics, 450
  reflective, 450

Index to SPIE Reports in Optical Engineering Vol. 20 (1981)

Subject and Title Index

Applied Optics—A Guide to Optical System Design, Vol. 2 (bk rev), SR-010
Applied Optics and Optical Engineering (Volume VIII), (bk rev), SR-110
Book Review, Reviewing the (editorial), SR-006
Book Reviews
  Applied Optics—A Guide to Optical System Design, Vol. 2, SR-010
  Applied Optics and Optical Engineering (Volume VIII), SR-110
  Chemical and Biochemical Applications of Lasers, SR-066
  Computer-Aided Techniques for the Design of Multilayer Filters, SR-190
  Fiber Optics and Lightwave Communications Standard Dictionary, SR-190
  Fiber Optics Patent Directory 1881-1979, SR-032
  Glow Discharge Processes (Sputtering and Plasma Etching), SR-108
  Handbook of Non-Topographic Photogrammetry, SR-032
  High Speed Pulse Technology Vol. IV Sparks and Laser Pulses, SR-032
  Image Pattern Recognition, SR-034
  Imaging Processes and Coherence in Physics (Lecture Notes in Physics Vol. 112), SR-032
  Interferometry by Holography, SR-142
  Introduction to Photographic Theory—The Silver Halide Process, SR-140
  Lasers: Operation, Equipment, Application, and Design, SR-008
  Light Scattering in Solids, SR-113
  Microscopes and Their Uses, SR-146
  Optical Fibre Communication Systems, SR-008
  Optical Radiation Measurements Vol. 2: Color Measurement, SR-034
  Optics to the Year 2000, Proceedings of the Society of Photo-Optical Instrumentation Engineers, Vol. 258, SR-191
  Photoacoustics and Photoacoustic Spectroscopy, SR-112
  Photographic Recording of High-Speed Processes, SR-189
  Physics and Chemistry of Liquid Crystal Devices, IBM Research Symposia Series, SR-012
  Physics of Nonlinear Transport in Semiconductors, SR-110
  Principles of Interferometric Spectroscopy, SR-110
  Progress in Optical Communications, SR-146
  Refraction and Clinical Optics, SR-033
  Safety with Lasers and Other Optical Sources, SR-068
  Sixth European Conference on Optical Communication, SR-067
  The Technical Communicator's Handbook of Technology Transfer, SR-144
  Theories of Spectral Line Shape, SR-146
  2500 Fiber Optics Patent Abstracts, SR-032
  Ultrasonic Imaging, SR-009
  A User's Guide to Vacuum Technology, SR-142
Business Side of Optics (forum), SR-030
Calendar, SR-015
Chemical and Biochemical Applications of Lasers, (bk rev), SR-066
Computation in Optics (forum), SR-108
Computer-Aided Techniques for the Design of Multilayer Filters (bk rev), SR-190
Classified Material, on the Citation of (editorial), SR-028
Editor's Office, Publishing Your Paper, Part One (editorial), SR-138
Editorials
  Citation of Classified Material, on the, SR-028
  Kingslake Medal and Prize, SR-805
  Publishing Your Paper Part One: The Editor's Office, SR-138
  Reviewing the Book Review, SR-006
  SPIE Reports, on, SR-102
  Tutorial Materials in *Optical Engineering*, SR-062
Electro-Optic Delphi Technology Forecasting Results (forum), SR-104
Fiber Optics and Lightwave Communications Standard Dictionary (bk rev), SR-190
Fiber Optics Patent Directory 1881-1979 (bk rev), SR-032
Forum
  Business Side of Optics, SR-030
  Computation in Optics, SR-108
  Electro-Optic Delphi Technology Forecasting Results, SR-104
  High Speed Videography at 2000+ Frames per Second, SR-184
  Laser Velocimetry, SR-064
  Some Thoughts on Optical Glasses and Their Properties, SR-186
  Summary Report on the Conference on Conical Optical Element Metrology, SR-140
  Teaching How to Invent—is it Possible?, SR-107
  Tricks of the Trade, SR-104
Glow Discharge Processes (Sputtering and Plasma Etching) (bk rev), SR-108
Handbook of Non-Topographic Photogrammetry (bk rev), SR-032
High Speed Pulse Technology Vol. IV Sparks and Laser Pulses (bk rev), SR-032
High-Speed Videography at 2000+ Frames per Second (forum), SR-184
Image Pattern Recognition (bk rev), SR-034
Imaging Processes and Coherence in Physics (Lecture Notes in Physics Vol. 112), (bk rev), SR-032
Industry News, SR-016, SR-039, SR-074, SR-118, SR-155
Interferometry by Holography, (bk rev), SR-142
Introduction to Photographic Theory—The Silver Halide Process (bk rev), SR-140
Kingslake Medal and Prize (editorial), SR-805
Laser Velocimetry (forum), SR-064
Lasers: Operation, Equipment, Application, and Design (bk rev), SR-008
Light Scattering in Solids (bk rev), SR-113
Meetings, SR-014, SR-036, SR-070, SR-116, SR-148, SR-192
Microscopes and Their Uses (bk rev), SR-146
New Literature, SR-017, SR-049, SR-156
New Members, SR-019
New Products, SR-020, SR-050, SR-077, SR-119, SR-160
Optical Fibre Communication Systems (bk rev), SR-008
Optical Radiation Measurements Vol. 2: Color Measurement (bk rev), SR-034
Optics to the Year 2000, Proceedings of the Society of Photo-Optical Instrumentation Engineers, Vol. 258 (bk rev), SR-191
People, SR-018, SR-038, SR-072, SR-154, SR-194
Photoacoustics and Photoacoustic Spectroscopy (bk rev), SR-112
Photographic Recording of High-Speed Processes (bk rev), SR-189
Physics and Chemistry of Liquid Crystal Devices, IBM Research Symposia Series, (bk rev), SR-012
Physics of Nonlinear Transport in Semiconductors (bk rev), SR-110
Placement Exchange, SR-021, SR-054, SR-095, SR-131, SR-174, SR-196
Principles of Interferometric Spectroscopy, (bk rev), SR-110
Progress in Optical Communications (bk rev), SR-146
Refraction and Clinical Optics (bk rev), SR-033
Safety with Lasers and Other Optical Sources (bk rev), SR-068
Service Directory, SR-197
Short Courses, SR-017, SR-035, SR-068, SR-114, SR-147, SR-194
Sixth European Conference on Optical Communication (bk rev), SR-067
Some Thoughts on Optical Glasses and Their Properties (forum), SR-186
SPIE Reports, on (editorial), SR-102
SPIE Scene, SR-019, SR-076, SR-150, SR-194
Summary Report on the Conference on Conical Optical Element Metrology (forum), SR-140
Teaching How to Invent—is it Possible? (forum), SR-107
The Technical Communicator's Handbook of Technology Transfer (bk rev), SR-144
Theories of Spectral Line Shape (bk rev), SR-146
Tricks of the Trade (forum), SR-104
Tutorial Materials in *Optical Engineering* (editorial), SR-062
2500 Fiber Optics Patent Abstracts (bk rev), SR-032
Ultrasonic Imaging (bk rev), SR-009
A User's Guide to Vacuum Technology, (bk rev), SR-142

Index to Persons, Companies, Associations, and Other Entities Mentioned in SPIE Reports in Vol. 20 (1981)

Adolf Meller Co., SR-051
Advanced Technology Resources Corp., SR-118
AEL Industries, Inc., SR-038
Aerospace Corp. SR-038, SR-072, SR-194
Aerotech, Inc., SR-020, SR-160
AGA Corp., SR-038
Alco Electronic Products, Inc., SR-160
Alles, David S., SR-038
Allied Chemical Corp., SR-118
Alpern, Mathew (reviewer, book review), SR-033
Amer. Association of Engineering Societies (AAES), SR-016, SR-072
Amer. Association of Physicists in Medicine, SR-038, SR-072
Amer. Electronic Laboratories, Inc., (AEL), SR-072, SR-154
Amer. Institute of Physics, SR-072, SR-118, SR-150
Amer. institute of Physics (AIP), SR-192
Amer. Optical Corp. SR-038
Amer. Research and Development (ARD), SR-016
Amer. Society for Engineering Education, SR-072, SR-155
Amer. Society for Nondestructive Testing (ASNT), SR-072, SR-116, SR-118, SR-150, SR-192
Amer. Society for Quality Control, SR-156
Amer. Society for Testing and Materials (ASTM), SR-038, SR-072
Amer. Society of Photogrammetry, SR-156
Amplifier Research, SR-077
Anderson, Daniel O., SR-073
Andrews, Robert J., SR-194
Andrews, Sydney D., SR-072
Apollo Lasers, Inc., SR-018, SR-020, SR-077
Applied Optics Center, Inc., SR-156
Applied Research Corp., SR-131, SR-174
Arrowlite Tools Ltd., SR-020
Audiotronics Corp., SR-194
Augat, Inc., SR-038, SR-049
Automatic Connector, Inc., SR-160
Avco Everett Metalworking Lasers (AEML), SR-039

Baboian, Robert, SR-072
Bachman, Paul L., (reviewer, book review), SR-140
Barker, J. R., SR-110
Bartleson, C. James, SR-034
Basic Microelectronics, Inc., SR-055, SR-095
Battelle's Columbus Labs., SR-016, SR-018, SR-049, SR-074
Bauman, Eduard, SR-195
Bausch & Lomb, SR-018, SR-020
BDM Corp., SR-194
Becker, Kathryn, SR-073
Beistline, Earl, SR-194
Bell Aerospace Textron, SR-196
Bell Laboratories, SR-038, SR-039
Bendow, Bernard, SR-194
Benedix, Claude P., SR-154
Benton, Stephen A., SR-195
Benyon, Margaret, SR-154
Berlin Physical Society, SR-036, SR-070
Betts, Austin W., Lt. General (Ret.), SR-154
Bierma, Kenneth R., SR-154
Biospherical Instruments Inc., SR-119, SR-162
Biovision, Inc., SR-160
Birman, Joseph L., SR-113
Blinick, Joseph S. Dr., SR-038
Block, Myron J., SR-041
Bloom, Arnold L., (reviewer, book review), SR-190
Bloom, Mitch, SR-038
Boyle, Kevin D., SR-154
Brandt, Gerald B., (reviewer, book review), SR-067
Breene, Robert G., Jr., SR-146
Bridge, Ronald W., SR-038
Brookhaven National Laboratory, SR-037, SR-070, SR-117, SR-148
Broomall Industries, Inc., SR-018
Bruning, John, SR-038
Bureau of Radiological Health (Food and Drug Administration), SR-071, SR-192
Burleigh Instruments, Inc., SR-049, SR-156
Burton, Keith, SR-018
Butusov, M. M., SR-142

Calma, SR-020
Cameron, John Roderick, SR-072
Campbell, Dick, SR-194
Campbell, John D., SR-154
Canoga Data Systems, SR-020
Carnegie-Mellon Univ., SR-072
Carroll, B. H., SR-140
Casasent, David P., SR-072
Caulfield, H. J., (Editorial), SR-006, SR-028, SR-062, SR-102, SR-138, SR-805
Central Intelligence Agency, SR-131, SR-174
Centronic, SR-021, SR-156, SR-160
Chaffee, Philip H., SR-072
Chamberlain, John G., SR-110
Chantry, G. W., SR-110
Chapman, Brian, SR-108
Charles Supper Co., Inc., SR-123
Chemical Society, SR-037, SR-070
Chen, Bor-Uei, (reviewer, book review), SR-032
Cheo, Peter K., (reviewer, book review), SR-146
Chinick, Harold P., SR-197
Chirayath, J. B., SR-195
Cidic Ltd., SR-021
Cingo, Ralph P., SR-154
Clarricoats, P. J. B., SR-146
Clay, Burton, SR-154
Coherent, Inc., SR-016, SR-018, SR-118, SR-156
Coherent, Inc., Engineering Staff of, SR-008
Coherent, Inc., Tropel, Div., SR-162
Cohu, Inc., SR-017, SR-049, SR-077, SR-156
Coleman Memorial Award, SR-073
Collier, Robert J., SR-038

Collier, Robert P., SR-018
Computer Recognition Corp., SR-114
COMTAL/3M, SR-021, SR-054, SR-077
Control Laser Corp., SR-021
Corbett, Francis J., SR-154
Corning Glass Works, SR-156
Council for Optical Radiation Measurements, (CORM), SR-036, SR-070
Cox Cable Communications, Inc., SR-041
Cranford, William R., SR-073
Credle, Paul, SR-195
Crest Energy Systems, Inc., SR-016
Crest Ultrasonics Corp., SR-039, SR-156
Cummins, Herman Z., SR-113
CVD Inc., SR-020

Davidson, Warren R., SR-072
Davies, David H. (reviewer, book review), SR-012
Davies, William O., SR-191
Davidson Optronics, Inc., SR-163
Deckert, Curt, SR-030, SR-144 (reviewer, book review)
Deem, Rebecca, SR-154
Delaney, R. Thomas, SR-195
Department of Defense, SR-074
Department of Energy, SR-118
Design Optics, SR-018
Deutsche Forschungsgemeinschaft, SR-036, SR-070
Digital Telecommunications, Ltd., SR-016
Dillon-Malone, Basil, SR-154
Dolan-Jenner Industries, Inc., SR-049, SR-156, SR-160
Drexler Technology Corp., SR-160
Dubé, George, SR-154
Dubovik, Alexander, SR-189
Dunhill of San Francisco Agency, Inc., SR-055, SR-095
Dvorin, Martin, SR-018
Dynamics Research Corp., SR-021, SR-077, SR-156

Ealing Corp., SR-020, SR-157
Eastman, Jay M., SR-073
Eastman Kodak Co., SR-055, SR-095, SR-157
Edmund Scientific Co., SR-050
Effects Technology, Inc., SR-160
EG&G Electro-Optics, SR-050, SR-162
EG&G, Inc., SR-016
EG&G Princeton Applied Research, SR-017
Eikonix Corp., SR-077, SR-157, SR-163
Eisner, Alvin (reviewer, book review), SR-034
Electrochemical Society, SR-036, SR-070, SR-193
Electron Devices Society of the IEEE, SR-070
Electronic Devices Inc., SR-055, SR-095
Electro-Optic Devices Corp., SR-050
EMI Technology, Inc., SR-050
EMR Photoelectric, SR-095, SR-131
Engelhard Minerals and Chemicals Corp., SR-038
Ennis, John, SR-195
Enoch, Jay M. (reviewer, book review), SR-034
Epoxy Technology, Inc., SR-017, SR-049, SR-078
Europtronique, S. A., SR-016
Evans, Gary A., SR-194
Ezekiel, Shaoul (reviewer, book review), SR-008

Farmer, W. M., SR-064
Feightner, Hal M., SR-194
Ferguson, Thomas R., SR-140
Ferry, D. K., SR-110
Fibronics Ltd., SR-163
Finn, Paul F., SR-072
Fischer, Robert E. (reviewer, book review), SR-110
FJW Industries, SR-174, SR-196
Fleming, Jim, SR-039
Ford Aerospace & Communications Corp., SR-074, SR-155
Francis, Ronald, SR-195
Freeman, Andrew (reviewer, book review), SR-066
Frieser, M. Hellmut, SR-195
Frosch, Robert A., SR-072
Frost & Sullivan, Inc., SR-157
Frungel, Frank B. A., SR-032

Galileo Electro-Optics, Corp., SR-194
Gambling, W. A., SR-067
Gardner, W. B. (reviewer, book review), SR-190
Garmire, Elsa M., SR-194
GCA/California Operations, SR-095, SR-131
GCA Corp., SR-072, SR-154
Geary, Joseph (reviewer, book review), SR-146
Geminder, Robert, SR-154
General Cable Co., SR-038, SR-039, SR-049
General Electric Co., SR-163
General Optronics Corp., SR-016
General Telephone and Electric, SR-074
Geological Soc. of London, SR-193
Geoscience Information Soc., SR-193
German Soc. of Applied Optics, SR-036, SR-070, SR-194
Gill, Danial E., SR-018
Gilleo, Mathias Alten, SR-154
Gillies, George T., SR-073
Gilway Technical Lamp, SR-078
GK Technologies, Inc., SR-039
Gnostic Concepts, Inc., SR-072, SR-078
Goffe, William L., SR-195
Goldman, Leon (reviewer, book review), SR-068
Goodemote, Richard H., SR-072
Goodrich, Philip E., SR-154
Gottlieb, Milton (reviewer, book review), SR-009
Gould R. B. Denison, SR-021
Graham, Donald, SR-195
Graube, Andrejs, SR-154
Greason, David M., SR-072
Greguss, Pal, SR-009
Griner, Donald B. (reviewer, book review), SR-142
Griot Assoc., SR-197
Grum, Franc, SR-034
Gutowski, Raymond J., SR-038

Hacker Instruments, Inc., SR-158
Hadley, Darrell L., SR-194
Hadley, Steven G., SR-073
Hadron, Inc., SR-039
Hamade, Adib, SR-073
Hamamatsu Corp., SR-051
Hamamatsu Systems, Inc., SR-078
Haney, Thomas J., SR-018
Heidiger, Herbert, SR-195
Helm, William R., SR-018
Henderson, Robert P., SR-073
Hercher, Michael, SR-041
Hernandez, Robert, SR-073
Herriott, Donald R., SR-038, SR-195
Hibshman Optical Lab., SR-018
Higgins, G. C., SR-140
High Power Corp., SR-051
Hirschfeld, Tomas (reviewer, book review), SR-110
Hoffman Engineering Corp., SR-158
Honeywell, SR-038, SR-074, SR-106
Honeywell Electro-Optics, SR-118, SR-154, SR-155, SR-194
Honeywell Optoelectronics, SR-118, SR-154
Horner, Joseph, SR-104
Hourican, Thomas, SR-018
Houston Research Associates, SR-118
Hyzer, William G., SR-032 (reviewer, book review), SR-073, SR-184

ICP Information Newsletter, SR-192
IEE, SR-037
IEEE Power Engineering Society, SR-015
Ilex Optical Co., SR-041
Illsley, Rolf F., SR-073
Image Research Corp., SR-016
Image Resource, SR-194
Image Technology Methods Corp., SR-163
Infotec Development Inc., SR-196
Insilco Corp., SR-016
Institute of Environmental Sciences, SR-154
Institution of Electrical Engineers, SR-070
Instrument Soc. of Amer., SR-072, SR-118, SR-150, SR-192
Instrumentation Marketing Corp., SR-074, SR-119, SR-165
Instruments SA, Inc., SR-119, SR-165
Integrated Computer Systems, SR-114, SR-148, SR-194
Integrated Photomatrix, Inc., SR-050, SR-161
International Communications & Energy, Inc., SR-050
International Defense Electronics Expo '82: SR-150
International Electricity Division of the Bureau of Weights and Measures, SR-073
International Electrotechnical Commission, SR-050
International Laser Systems, Inc., SR-119, SR-158
International Light, Inc., SR-158
International Motorcon '81, SR-104
International Resource Development Inc., SR-018
International Soc. for Hybrid Microelectronics, SR-016
International Soc. for Photogrammetry and Remote Sensing (ISPRS), SR-193
Itek Corp., SR-073, SR-154
Itek Measurement Systems Div., SR-158
Ithaco Inc., SR-161
ITT (International Telephone and Telegraph Corp.), SR-039
ITT Cannon Electric, SR-038, SR-073, SR-154, SR-194
ITT Electro-Optical Products Div. SR-039, SR-078, SR-119
ITT Federal Electric Corp., SR-196

Jacoboni, C., SR-110
Jagannathan, Ramesh, SR-195
James, T. H., SR-140
Jenkins, Colin S., SR-154
John R. Miles Corporation, SR-038
Joslyn, Danforth, SR-073
Junod, Pierre, SR-195

Karara, H. M., SR-032
Kazuko Enterprises, Inc., SR-165
Kelly, Chuck, SR-018
Kelly, Walter D., SR-195
Kimball, Charles N., SR-194
Kingslake, Rudolf, SR-018
Kitt Peak National Observatory, SR-021, SR-196
Kittel, J. Howard, SR-154
Klinger Scientific Corp., SR-158
Kollmorgen Corp., SR-020
Kolodny, Irving, SR-038
Kopf, Eugene H., SR-154
Kovalevsky, V. A., SR-034
Krasilovsky, Alexis, SR-154
Kuhn, Hans, SR-195

Labsphere, SR-158
Lambda Physics, Inc., SR-051
Lambda Physik, SR-118
Karl Lambrecht Corp., SR-051, SR-078
Laser Diode Laboratories, Inc., SR-158
Laser Identification Systems, Inc. (LIS), SR-016
Laser Institute of America, SR-035, SR-068, SR-114, SR-116, SR-147, SR-148, SR-194
Laser Institute of Japan, SR-116, SR-148
Lasergage Limited, SR-079
Lawrence Livermore National Laboratory, SR-114, SR-147
L-W International, SR-078
Lear, W. Edward, SR-072
Lee, Wylie I. (reviewer, book review), SR-113
Leo Beiser Inc., SR-074
Leubner, Ingo H., SR-195
Levi, Leo, SR-010
Lexel Corp., SR-018, SR-074, SR-079
Liang, Alex, SR-038
Liddell, Heather M., SR-190
Lightwave Technologies, Inc., SR-155
Lincoln, Arnold J., SR-038
Lindberg, Lorin, SR-018
Lindsay, Franklin A., SR-073
Loh Optical Machines, Inc., SR-194
Lohmann, A. W., SR-107
Lombardo, Russell L., Jr., SR-018
Loomis, John S. (reviewer, book review), SR-142
Los Alamos Scientific Laboratory, SR-015, SR-017
Lubin, Moshe, SR-073
Ludman, Jacques E. (reviewer, book review), SR-110
Luhrs, Henry N., SR-154

MacChesney, John, SR-039
Macera, Salvatore, SR-073
Mack, Hans, SR-194
M/A-COM, Inc., SR-016, SR-075
Manufacturers' Agent Publishing Co., Inc., SR-158
Marlowe, Donald, SR-072
Marmasse, Claude, SR-146
Materials Research Soc., SR-117, SR-148
Math Associates, SR-079, SR-119
MCB Manufacturing Chemists, Inc., SR-050
McCarthy, J., SR-197
McCasland, John T., SR-018
McKisson, Robert E., SR-018
McMahon, John J., SR-072
Meichsner Instrument Co., Inc., SR-079
Melamed, Danny Eli, SR-018
Melles Griot, SR-041, SR-081, SR-158
Mengers, Paul, SR-154
Metex Corp., SR-050
Metrologic Instruments, Inc., SR-081, SR-161
Michigan Technological Univ., SR-175, SR-196
Miles, John R., SR-038
Mizuki, Eiichi, SR-195
Mobius, Dietmar, SR-195
Monsanto Co., SR-196
Moore, C. Bradley, SR-066
Morrocco, John T., SR-073
Mott, Nevill Francis, SR-195
Muller, Jorg, SR-195
Murphy, John B., Jr., SR-038
Museum of Holography, SR-154

Nachrichtentechnische Gesellschaft im VDE (NTG), SR-036, SR-070, SR-116, SR-148
Narodny, Leo, SR-197
NASA, SR-116
National Bureau of Standards, SR-072, SR-118, SR-150, SR-192
Naval Research Laboratory, SR-039
Nemtzow, Scott, SR-154
Newport Research Corp., SR-050, SR-075, SR-081
Niesen, Joseph W., SR-194
North American Angénieux, SR-131, SR-174

O'Connor, Paul, SR-039
Octek Inc., SR-119
Office of Technology Assessment (OTA), SR-194
O'Hanlon, John F., SR-142
Olivetti Corp., Italy, SR-070
Olken, Hyman, SR-144
Olswang, Steven, SR-197
Olympus Corp. of America, SR-165
Omega Engineering, Inc., SR-161
Optical Coating Laboratory, Inc., SR-018, SR-073, SR-194
Optical Fiber Technologies, Inc., SR-194
Optical Information Systems, SR-050, SR-052, SR-158
Optical Machinery & Instrument Co., SR-039
Optical Radiation Corp., SR-121
Optical Sciences Group, Inc., SR-018, SR-055, SR-131, SR-175
Optical Society of America (OSA), SR-148, SR-149, SR-150, SR-192, SR-193
Opto-Electronics Ltd., SR-161
Optra, Inc., SR-041
Optron Corp., SR-158
Optronics International, Inc., SR-075, SR-154, SR-161
Optronics International, Inc., Space Optics Research Labs (SORL), SR-165
Optronics Specialty Co., Inc., SR-158
Oriel Corp., SR-052, SR-081, SR-121
Orlando, Carl, SR-195
Orlove, Gary L., SR-038
Orr, Edwina, SR-154
Ostrovskaya, G. V., SR-142
Ostrovsky, Yu. I., SR-142

Pacific Optical, SR-196
Pacific Scientific Co., SR-078
Palais, Joseph C. (reviewer, book review), SR-008
Parker, C. J., SR-186
Pearlstein, Burton, A., SR-154
Pentax Corp., SR-162
Perkin-Elmer Corp., SR-018, SR-020, SR-155, SR-165, SR-195
Perry, John, SR-154
Phares, Joe D., SR-038
Philips, SR-075
Phillips, Sheldon, SR-195
Photo Research, SR-020, SR-081, SR-121, SR-159
Photo/Science, SR-095, SR-131
Photochemical Research Associates, SR-159
Photodyne, Inc., SR-165
PhotoMetrics, Inc., SR-081
Photronics Corp., SR-041
Pinnow, Douglas A., SR-038
Plasma Physics Corp., SR-165
Plessey Optoelectronics and Microwave, SR-081
Plessey Peripheral Systems, SR-018
Poulsen, Peter D. (reviewer, book review), SR-191
Precision Art Coordinators, Inc., SR-081
Precision Monolithics, Inc., SR-073
Probe Research, Inc., SR-159
PTR Optics Corp., SR-158
Purdue Univ., SR-075

QSI Systems, Inc., SR-081
Quantel International, SR-119, SR-162
Quantex Corp., SR-154, SR-159
Quantronix, Inc., SR-016, SR-075
Quantum Electronics Group of the Institute of Physics, SR-037, SR-070

Ramtek Corp., SR-159
Ravich, Leonard E., SR-195
Rebane, Karl K., SR-113
Recon Optical Glass, SR-083
Redlake Corp., SR-083
Renner, Robert H., SR-195
Resor, Griffith L., III, SR-154
Reticon Corp., SR-016
Reusser, Kenneth, SR-039
Reynolds, George O., SR-154
Rochester Gas & Electric Co., SR-041
Rochester Institute of Technology, SR-131, SR-175, SR-176
Rochester Institute of Technology, School of Photographic Arts & Sciences, SR-197
Rockwell International Corp. SR-073
Rofin Inc., SR-162
Rose, Carl, SR-038
Rosencwaig, Allan, SR-112
Rounds, Erica M. (reviewer, book review), SR-034

Sadtler Research Laboratories, SR-159
Safir, Aran, M. D., SR-033
Sager, Richard, SR-194
Sandbank, C. P., SR-008
Sandler, Michael I., SR-072
Saphikon, SR-083
Savage, Lee, SR-018
Schlenker, M., et al., SR-032
Schlossberg, Howard, (reviewer, book review), SR-112
Schmidt, William C., SR-018
Schoof, Jill, SR-195
Schott Optical Glass, Inc., SR-154, SR-195
Schueler, Carl F. (reviewer, book review), SR-032
Schuman, Daniel G., SR-018
Schweitzer, Dan, SR-154

Sciammarella, Cesar A., (reviewer, book review), SR-032
Science Applications, Inc., SR-021
Science Spectrum, SR-159
Scripps Institution of Oceanography, SR-015
Senat of Berlin, SR-036, SR-070
Shannon, Robert R. (reviewer, book review), SR-010, SR-110
Shapiro, Bernard L., SR-072
Shepard, Bruce L., SR-195
Silver, Joel (reviewer, book review), SR-066
Silverman, Jerry (reviewer, book review), SR-110
Sira Institute Ltd., SR-114, SR-015, SR-068, SR-119, SR-147
Sliney, David, SR-068
Société Anonyme de Télécommunications (S.A.T.), SR-016
Soc. for Information Display (SID), SR-036, SR-070, SR-116, SR-148, SR-193
Soc. of Glass Technology, SR-193
Soc. of Photographic Scientists and Engineers (SPSE), SR-036, SR-037, SR-070, SR-116, SR-148, SR-195
Sorensen, Warren J., SR-154
Space Optics Research Labs., SR-050
Spatial Data Systems, SR-052, SR-083
Spectra-Physics, SR-050, SR-121
Spectron Development Laboratories, Inc., SR-148
Spectronics, SR-038
Spectronics, Div. of Honeywell, SR-158
Spellman High Voltage Electronics Corp., SR-052
Spiering, Walter, SR-154
Sprokel, Gerald J., SR-012
Spry, Harry W., SR-038
Stafford, John W., SR-038
Standard Equipment Co., SR-159
Stanford Univ. School of Medicine, SR-036, SR-014, SR-015, SR-070
Stanton, Alan (reviewer, book review), SR-066
Steiger, Rolf, SR-195
Stewart, Richard D., SR-072
Stoeppel, George, SR-154
Stone, N. W. B., SR-110
Stoltzman, David E., SR-108
Storage Technology Corp., SR-197
Stuart, Peter M., SR-195
Sugino, Paul S., SR-018
Swankin, David A., SR-072
Swyt, Dennis A., SR-073
Syn-Optics, SR-195
Systems Research Laboratories, Inc., SR-055, SR-095

Tamulevich, Thomas W., SR-194
Taylor, Kenneth W., SR-072
Taylor, Robert L., SR-018
Technische Universität Berlin, SR-015
Tescher, Andrew G., SR-072, SR-194
Texas Tech Univ., SR-159
Textron, Inc., SR-016
Thompson, Brian J., SR-018, SR-189 (reviewer, book review)
Thompson, Jim, SR-154
Times Fiber Communications, Inc., SR-016, SR-038, SR-041, SR-052, SR-073, SR-160
Tobey, Aubrey C., SR-154
Toler, O. Eugene, SR-194
Twelfth Assembly of the International Commission for Optics, SR-015, SR-116, SR-036, SR-070
Tyler, Douglas, SR-154

Ultra Sensors, Inc., SR-053
Ultra-Violet Products, SR-053
Uniform Tubes, Inc., SR-018
United Detector Technology, SR-052, SR-160, SR-165
United Technologies Research Ctr., SR-196
Universal Instruments Corp., SR-123
Universal Systems, Inc., SR-039
Univ. of Alabama in Huntsville, SR-015, SR-035
Univ. of Arizona Optical Sciences Ctr., SR-196
Univ. of California, Berkeley, SR-095
Univ. of California Extension, Santa Barbara, SR-035, SR-068, SR-114
Univ. of California, Livermore, SR-021
Univ. of California at Los Angeles (UCLA), SR-194
Univ. of California at Los Angeles (UCLA) Extension, SR-114, SR-148
Univ. of Colorado Health Sciences Center, SR-035
Univ. of Dayton Research Institute, SR-095, SR-131
Univ. of Lowell, SR-035
Univ. of Michigan, SR-035, SR-068
Univ. of Rochester, SR-016, SR-018, SR-035, SR-054, SR-068, SR-095, SR-114
Univ. of Rochester's Laboratory for Laser Energetics, SR-073
Univ. of Wisconsin-Extension, SR-035, SR-068, SR-148
U.S. Army Communications and Electronics Material Readiness Command, SR-041
U.S. Dept. of Commerce's National Bureau of Standards, SR-073
U.S. Dept. of Energy, SR-016

Valtec Corp, SR-018, SR-038, SR-041, SR-053, SR-075, SR-123, SR-156, SR-160, SR-195
Vatz, Bernard W., SR-104
VDI/VDE-Society for Fine Precision Techniques, SR-036, SR-070
Velmex, Inc., SR-083
Vickers Instruments, Inc., SR-083
View Engineering, SR-018, SR-053
Vincent Associates, SR-053

Wallace, William E., SR-154
Walsh, Bill, SR-072
Walter, H., SR-194
Ward, Rex, SR-018
Weik, Martin, H., SR-190
Weston, G. F. (reviewer, book review), SR-108
Wey, Jong S., SR-195
Wheeler, George C., SR-072
White, M. Vivian, SR-072
Wild Heerbrugg AG, SR-195
Wolbarsht, Myron, SR-068
Wormhoudt, Joda (reviewer, book review), SR-146
Wyant, James C., SR-110
Wyntjes, Geert, SR-041

Yaver, Joseph, SR-194

Zahniser, Mark (reviewer, book review), SR-066
Zakrzewski, Chester W., SR-154
Carl Zeiss, Inc., SR-018, SR-022, SR-054, SR-083, SR-123
Zygo Corp., SR-055, SR-095

INDEX TO ADVERTISERS

ABA Electromechanical Systems, Inc., SR-149
Astron Developments Ltd., Cover 2 20(6)
R. P. Cargille Laboratories, Inc., SR-174
CLEO 1982 OFC, Cover 3 20(6)
Coherent, Tropel Division, Cover 3 20(2), Cover 3 20(4), SR-185
Colorado Video Inc., SR-071, SR-121, SR-151, SR-189
Crane, Russak & Company, Inc., SR-123
Diversified Optical Corp., Cover 3 20(5)
EMR Photoelectric, Cover 2 20(2)
ESCO Products Inc., SR-053, SR-079
First Boston Corporation, Cover 3 20(1)
FJW Industries, SR-039, SR-145
Alan Gordon Enterprises, Inc., SR-117
IEEE/OSA CLEO Conference 1981, SR-048
Instrumentation Marketing Corp., SR-009, SR-037, SR-065, SR-073, SR-075, SR-105, SR-111, SR-113, SR-147, SR-157, SR-191
International Light Inc., SR-049
Kitt Peak National Observatory, SR-175
Karl Lambrecht Corporation, SR-041, SR-159
Loh Optical Machinery, Inc., Cover 2 20(4)
Los Alamos Scientific Laboratory, SR-013, SR-042
Martin Marietta Orlando Aerospace, SR-017
Melles Griot, Cover 2 20(5)
Newport Corporation (previously Newport Research Corporation), Cover 4 of 20(1), 20(2), 20(3), 20(4), 20(5), 20(6)
J. A. Noll Co., SR-142
Optical Society of America, SR-010, SR-162
Optics and Laser Technology, SR-013
Opto-Line Corporation, SR-037, SR-111
Photo Research, SR-153, SR-163
Plummer Precision Optics, Cover 2 20(1), Cover 2 20(3), SR-141
Quantex Corporation, SR-015, SR-033, SR-067, SR-107
Redlake Corporation, SR-155
Rolyn Optics, SR-036, SR-144, SR-190
Schott Optical Glass, Inc., SR-011, SR-031, SR-109, SR-143
Sierra Scientific Corporation, SR-069, SR-187
SORL Space Optics Research Lab, SR-157
Trek Inc., SR-035, SR-195
Tropel Div., Coherent, Cover 3 20(2), Cover 3 20(4), SR-185
TRW Defense & Space Systems, Inc, SR-055
University of Rochester, Cover 3 20(3)
Velmex, Inc., SR-012, SR-049, SR-079, SR-117, SR-174, SR-193
A. W. Vincent Associates, Inc., SR-008, SR-041, SR-077, SR-119, SR-161, SR-195